NCR

280-550/555 INTERACTIVE RETAIL TERMINAL

Programming Handbook

Educational Publications
CORPORATE EDUCATION

This publication is published in convenient pocket-sized format to be used as a freestanding document for ready programming reference. For district or branch level filing purposes, this publication is distributed as a part of the *NCR 280-550/555 Programming* module in the *NCR 280/725 INTERACTIVE SYSTEM INFORMATION* binder. It is also assigned a separate stock number, ST-9419-16, for individual ordering.

NCR 280-550/555 INTERACTIVE RETAIL TERMINAL

PROGRAMMING HANDBOOK

INTRODUCTION

This publication summarizes NCR 280-550/555 Interactive Retail Terminal read/write memory programming criteria. Before using this reference document, the reader should have a thorough knowledge of the NCR 280/725 Interactive Retail System and be familiar with the detailed programming information contained in the *NCR 280-550/555 Programming* module of the *NCR 280/725 INTERACTIVE SYSTEM INFORMATION* binder.

The references provided in this handbook are organized into four sections following the introduction. The first section, "Programmable Function Checklist," relates commonly programmed functions to read/write memory addresses.

The second section, "General Tables," provides references for multiple programming functions. The tables included in this section are as follows:

- Function key use during programming sequences.
- Basic transaction sequence control word (TSCW) format.
- Operator message programming format.
- TSCW level print control.
- Transaction level print control.
- Print control summary.
- Print column address and maximum/minimum field size.
- Automatic data transfer (ADT) programming example.
- Programmable mnemonics and check endorsement logo character set.
- Mnemonic programming example.
- TCU terminal address character programming.

The third section, "Core Map," illustrates the bit-by-bit configuration of each programmable location in the read/write memory. Functional bit-state tables that apply to **specific** memory locations are included with the core map. Suggested operator message programming is depicted in the core map; however, other configurations may be selected according to user requirements. Space is provided within the core map to permit the programmer or analyst to pencil in desired programming entries for each location before loading the information into the 280. Preprinted programming and print layout worksheets, published in pad form, are available as ST-61713, which may be ordered by using the standard "Marketing Forms & Publications Order" (F-6680). These worksheets or their facsimile may serve as alternate media for making programming notation prior to loading the terminal

program. Throughout the core map, location addresses are expressed in both octal and hexadecimal code with the latter code enclosed in parentheses. Hexadecimal code is used to access the read/write memory locations during interactive output from central and is of significance primarily to the central programmer or analyst.

The fourth section, "Code Conversion Table," depicts the equivalents for decimal, octal, hexadecimal, and binary configurations used when programming the NCR 280.

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PROGRAMMABLE FUNCTION CHECKLIST

Programmable Function	Octal Starting Address/Bit	Hexadecimal Address ( )
Store Number	0156	(6E)
Terminal Number	0160	(70)
Qualification Code Entry Control		
Lockout Table (0-46)	0176	(7E)
Pay-on-Account (8)	0142/3	(62)
Pay-on-Account (9)	0144/1	(64)
Post Qual Lockout	0033/1	(1B)
Automatic Qual Code	1163	(1/73)
GTC or Bank Card I Charge for Qual Code 46	0144/5	(64)
50 Series Qual Codes — See Interactivity Control		
Operator Identification Entry Control		
Operator ID No. Word	0000	(00)
Merchandise Data Entry Control		
First Merchandise Word (DEPT)	0004	(04)
X Key Illegal at DEPT	0133/6	(5B)
Decimal Key Illegal at DEPT	0143/1	(63)
Auto Department No. Feature	0142/4	(62)
Auto Department No. Constant	1161	(1/71)
Line Item Discount Illegal	0033/2	(1B)
Second Merchandise Word (CLASS)	0010	(08)
Third Merchandise Word (MDSE NO)	0014	(0E)
Quantity/Price Word (QTY X or/PRICE)	0020	(10)
Decimal Key Legal in Amt. Fields	0033/5	(1B)
Decimal Key Illegal in Quantity	0143/3	(63)
Miscellaneous Data X Word	0073	(3B)
Item Abort Illegal	0135/2	(5D)
Item Correct Illegal	0140/4	(60)
Nonmerchandise Data Entry Control		
Nonmerchandise Selection Word	0024	(14)
Discount ID Word	0034	(1C)
Discount Percent Word	0041	(21)
Discount Percent Constant	0153	(6B)
Decimal Key Illegal at Discount Percent	0143/2	(63)
One Discount per Transaction only	0136/8	(5E)
Discount only 1 Itemizer	0137/8	(5F)
Fee Type Word	0046	(26)
Fee Amount Word	0052	(2A)
Miscellaneous Credit Type Word	0056	(2E)
Miscellaneous Credit Amount Word	0062	(32)
Deposit Amount Word	0066	(36)
Miscellaneous Data 6 Word	0077	(3F)
Item Abort Illegal	0135/1	(5D)
Item Correct Illegal	0140/5	(60)
End Mdse. End Returns Illegal	0133/4	(5B)
Tag Entry Control		
Accept Quantity before Tag Read (Merchandise Mode)	0220/6	(90)
Data Collect Old and New Price	0140/7	(60)
Accept ID and Account No. Tags at Misc. Data X Word	0220/7	(90)

PROGRAMMABLE FUNCTION CHECKLIST

Programmable Function	Octal Starting Address/Bit	Hexadecimal Address ( )
Suppress One Leading 0 on Account No. Tags	0140/3	(60)
Accept Fee or Miscellaneous Credit Type Tags	0070/8	(38)
Quantity Extension Legal for Fee and Misc. Cr. Tags	0033/3	(1B)
Sound Bad Read Tone (NCR 7867 Only)	0153/6	(6B)
Automatic Tax Exception (NCR 7867 Only)	0153/5	(6B)
Tax Control		
Manual Tax Word	0113	(4B)
Tax Options	0133/1-2	(5B)
Tax Constant Word	0221	(91)
Tax Value Word	0222	(92)
Tax Break Table Word	0223	(93)
Nontaxable Merchandise Items and Discounts	0135/6	(5D)
Nontaxable Nonmerchandise Entries	0135/5	(5D)
Permit Subtotal Tax Extension	0137/1	(5F)
Amount Tendered Entry Control		
Amount Tendered Word	0103	(43)
Checks Tendered Illegal (/For)	0106/6	(46)
Multiple Checks Tendered Illegal	0136/3	(5E)
Multiple Cash Tendered Illegal	0137/6	(5F)
Exact Amount Tendered Illegal	0135/8	(5D)
Check Authorization Feature	0135/3	(5D)
CLEAR Key Lockout following Check Authorization	0140/2	(60)
Account Number Entry Control		
Account Number Word	0107	(47)
Request Acct. No. on Bank Card I	0032/1	(1A)
Request Acct. No. on Bank Card II	0032/3	(1A)
Negative Quick Check Legal	0140/8	(60)
Credit Authorization at Acct. No. Feature (Store Controlled Accounts)	0135/4	(5D)
Credit Authorization for Bank Card I Account Number	0032/2	(1A)
Credit Authorization for Bank Card II Account Number	0032/4	(1A)
Credit Authorization for Bank Card I Negative Quick Check	0033/8	(1B)
Credit Authorization for Bank Card II Negative Quick Check	0033/7	(1B)
Credit Authorization for Pay-on-Account at Account Number	0144/2	(64)
Credit Authorization if Charge Cr.	0136/4	(5E)
Credit Authorization Abort Illegal	0136/6	(5E)
CLEAR Key Lockout following Credit Authorization	0140/1	(60)
Floor Limit Authorization Feature	0133/8	(5B)
Minimum Floor Limit Word	0326	(D6)
Maximum Floor Limit Word	0147	(67)
Date Entry Control		
Date Word	0117	(4F)

PROGRAMMABLE FUNCTION CHECKLIST

Programmable Function	Octal Starting Address/Bit	Hexadecimal Address ( )
Transaction Void Entry Control		
Transaction Void Word	0123	(53)
Closing Entry Control		
Closing Word	0127	(57)
Decimal Key Illegal at Closing Qty.	0143/4	(63)
Check Digit Verification (CDV) Control in Addition to TSCW Level		
PDA Method for Alternate Resident CDV Scheme	0143/8	(63)
PDA Method for Resident CDV Scheme	0143/7	(63)
Alternate Resident and Resident CDV Moduli Word	0323	(D3)
Alternate Resident and Resident CDV Weights Word	0255-0277	(AD-BF)
PDA Method for Bank Card I CDV Scheme	0143/6	(63)
PDA Method for Bank Card II CDV Scheme	0143/5	(63)
Bank Card I and Bank Card II CDV Moduli	0324	(D4)
Bank Card I and Bank Card II CDV Weights	0300-0322	(C0-D2)
Perform CDV on Bank Card I Account Number	0137/4	(5F)
Perform CDV on Bank Card II Account Number	0137/3	(5F)
Perform CDV on Pay-on-Account Account Number	0144/3	(64)
Use Left Set of Weights for Pay-on Account	0142/8	(62)
Use Bank Weights For Pay-on-Acct.	0142/7	(62)
General Transaction Control		
Open Cash Drawer Operation	0070/7	(38)
Programmable Cash Drawer Option	0133/3	(5B)
Closed Cash Drawer on Qual Code 20	0137/7	(5F)
Transaction Abort Illegal	0135/7	(5D)
Dispense Change on Credits	0136/5	(5E)
Media Count Increment Table	0213	(8B)
Round-Off Option	0153/7-8	(6B)
Data Collection and Check/Credit Authorization Communications		
Data Collect Offline Tone	0144/4	(64)
Line Establishment/Mess. Response Timeout (280-550)/Credit Auth. Select Timeout (280-555)	0145	(65)
Input Gross Message Timeout	0146/5-8	(66)
Hang Up Terminal if Offline	0033/6	(1B)
Data Collect Buffer Cutoff Word	0151	(69)
Keyboard Format Word	0152	(6A)
Interactivity Control		
Lockout Totals Reset from Central	0141/4	(61)
Lockout Remote Prog. without Key	0141/3	(61)

PROGRAMMABLE FUNCTION CHECKLIST

Programmable Function	Octal Starting Address/Bit	Hexadecimal Address ( )
Accept Unsolicited Output from Central	0141/2	(61)
Remote Program Load Permit	0141/1	(61)
Go To Central (GTC) at TSCW	all TSCWs	— — —
GTC on 50 Series Qual Codes	0033/4	(1B)
GTC on Qual Code 46	0144/5	(64)
GTC on All Valid Qual Codes	0220/8	(90)
GTC on All Illegal Qual Codes	0141/6	(61)
GTC on All Qual Codes if Slip Inserted	0141/7	(61)
No GTC in Merchandise Mode if Slip not Enforced	0141/5	(61)
GTC on Bank Card I Acct. No.	0141/8	(61)
GTC on Bank Card II Acct. No.	0032/5	(1A)
GTC on Pay-on-Account Acct. No.	0142/6	(62)
GTC at Deposit Word for Pay-on-Account	0142/5	(62)
Interactive Communications Control		
Interactive Offline Tone	0140/6	(60)
Input Gross Message Timeout (same as DC/CA)	0146/5-8	(66)
Interactive Line Establishment/ Mess. Response Timeout (280-550)/ Interact. Select Timeout (280-555)	0325	(D5)
Merchandise Master Flag	0142/2	(62)
Nonmerchandise Master Flag	0142/1	(62)
General Print Options		
Pickup Slip Print	0136/7	(5E)
No Print by Terminal Except in Programming Mode	0135/1	(5D)
Do Not Print Amount Tendered	0136/2	(5E)
Do Not Print Change Due	0136/1	(5E)
Disable Subttl. Print During Closing	0137/2	(5F)
Header Print Control	0166-0171	(76-79)
Footer Print Control	0172-0174	(7A-7C)
Check Endorsement	0133/7	(5B)
Check Endorsement Logo Print	0133/5	(5B)
Programmable Mnemonics/Check Endorsement Logo	0330-1160	(0/D8-1/70)
Journal Mnemonics Column Address	0070	(38)
Receipt/Slip Mnemonics Column Address	0217	(8F)
Print Minus (-) Sign on Journal	0070/6	(38)
Print Minus (-) Sign on Receipt/Slip	0217/6	(8F)
Minus (-) Sign Column Address (All Print Stations)	0220	(90)
Transaction Level Print Control		
Slip Enforce Table (Qual Codes 0-37)	0203	(83)
Slip Enforce (Qual Code 40)	0146/3	(66)
Slip Enforce (Qual Code 41)	0146/1	(66)
Slip Validation Table	0207	(87)
Slip Validation (Qual Code 40)	0146/4	(66)
Slip Validation (Qual Code 41)	0146/2	(66)
Validate Transaction Print Control	0134/6-8	(5C)
Nonvalidate Trans. Print Control	0134/3-5	(5C)

PROGRAMMABLE FUNCTION CHECKLIST

Programmable Function	Octal Starting Address/Bit	Hexadecimal Address ( )
Qual. Code 42-46 Print Control	0144/6-8	(64)
Post Qualified Trans. Print Control	0032/6-8	(1A)
TSCW Level Print Control		
Line Item Discount — Left Justified Indexed Percent, %, Space, Disc ID	0001	(01)
Department Number	0005	(05)
Class Number	0011	(09)
Merchandise Number	0015	(0D)
Qty (Load only) at Qty/Price Word	0021	(11)
Nonmerchandise Selection Code	0031	(19)
Discount ID Number	0036	(1E)
Indexed Percent at Discount Percent Word	0043	(23)
Fee Type Code	0047	(27)
Miscellaneous Credit Type Code	0057	(2F)
Miscellaneous Data X	0074	(3C)
Miscellaneous Data 6	0100	(40)
Check Number (Load only)	0104	(44)
Account Number	0110	(48)
Tax Code (Load only)	0114	(4C)
Date (Opening only)	0120	(50)
Trans./Terminal No. (Void or Reentry)	0124	(54)
Closing Quantity (Load only)	0130	(58)
All Amounts	0163	(73)
Wand Reader Transparent Data	0165	(75)
Fixed Format Symbols		
Nontaxable Amount Symbol (#) Printed in the Column to the Right of the Item Amount	— — —	— — —
Percent Symbol (%); Printed in the Column to the Right of the Indexed Percent.	— — —	— — —
Discount of Both Itemizers Symbol (T); Printed in the Column to the Right of the Discount Amount.	— — —	— — —
Line Spacing Options		
Feed One Line After Print of Merchandise Data	0217/8	(8F)
Feed One Line After Print of Nonmerchandise Data	0217/7	(8F)
Number of Lines between Header and Body of Slip	0164/1-4	(74)
Maximum No. of Slip Lines (Body)	0162/1-7	(72)
Number of Lines between Body and Account Number	0164/5-8	(74)
Number of Lines between Account Number and First Footer Line	0175/5-8	(7D)
Single Line Footer	0134/2	(5C)
Number of Lines between First and Second Footer	0175/1-4	(7D)

FUNCTION KEY USE DURING PROGRAMMING SEQUENCES

Function Key	Use
ENTER	1. Read data from an accessed location 2. Read data from next sequential location when no address is entered
SUBTOTAL	Initiate core dump at selected location
PRICE CHANGE	1. Write data into accessed location 2. Write data into next sequential location when no address is entered
/FOR	Separate address from data during write operation
TOTAL	Exit from programming
ITEM CORRECT	Change sectors, pressed following sector number entry
CLEAR	Clear erroneously indexed data, or clear error conditions
Any Key	Terminate core dump

BASIC TRANSACTION SEQUENCE CONTROL WORD (TSCW) FORMAT

	b8	b7	b6	b5	b4	b3	b2	b1
First Character	Skip This Word	Operator Message (Row)		Interactive at This Word	Additional Operator Messages	Operator Message (Column)		
When additional operator messages are included in a TSCW, bit 5 of the last message character governs interactivity.								
Second Character	Print Control (TSCW Level)			Print Column Address (0 to 29)				
	Load/ Print	Slip/ Receipt	Journal	Binary Weights				
				16	8	4	2	1
Third Character	Right Justify Print Data	Reserved For Future Use		Maximum Field Size (0 to 27)				
				Binary Weights				
				16	8	4	2	1
Fourth Character	Left Set of CDV Weights and Modulus	CDV This Entry	/FOR Key Illegal	Minimum Field Size (0 to 27)				
				Binary Weights				
				16	8	4	2	1

OPERATOR MESSAGE PROGRAMMING FORMAT

			Column (Bits 3, 2, and 1)					
			1	2	3	4	5	6
			001	010	011	100	101	110
Row (Bits 7 and 6)	1	00	DIS-COUNT 1	FEE 2	MISC. CR. 3	CSH DEP -4 CHG DEP -5	DATA 6	JOUR-NAL LOW*
	2	10	DEPT.	CLASS	MDSE. NO.	TAX EXCEP-TION*	ID NO.	AMOUNT TOTAL*
	3	01	TAX AMT.	TRANS. NO. / TERM NO.	QTY/OR X PRICE	AMT. TEND.	DATE	CREDIT*
	4	11	COMM.* ALERT	INSERT* SLIP	PER-CENT	ACCT. NO.	AMOUNT	CHANGE DUE*

*These messages are illuminated by the firmware program and are not normally programmed in the read/write memory.

TSCW LEVEL PRINT CONTROL

b8	b7	b6	Print Control (TSCW) Level)
0	0	0	Load the journal and slip/receipt print buffers, and print data from journal buffer.
0	0	1	Load the journal print buffer only.
0	1	0	Load the slip/receipt print buffer only.
0	1	1	Load the journal and slip/receipt print buffers.
1	0	0	Load the journal and slip/receipt print buffers, and print data from slip/receipt buffer.
1	0	1	Load and print for journal only.
1	1	0	Load and print for slip/receipt only.
1	1	1	Load and print journal and slip/receipt.

TRANSACTION LEVEL PRINT CONTROL

Print Control Bits				Transaction Print Media		
Bit 8/5	Bit 7/4	Bit 6/3				
Slip Enforce (Locs. 0203-0206)	Print on Slip and Journal	Print on Receipt and Journal	Slip Overrides Receipt	Slip	Receipt	Journal
0	0	0	0	No	No	Yes
0	0	0	1	No	No	Yes
0	0	1	0	No	Yes	Yes
0	0	1	1	(1)	(2)	Yes
0	1	0	0	(1)	No	Yes
0	1	0	1	(1)	No	Yes
0	1	1	0	(1)	Yes	Yes
0	1	1	1	(1)	(2)	Yes
1	0	0	0	(3)	No	Yes
1	0	0	1	(3)	No	Yes
1	0	1	0	(3)	Yes	Yes
1	0	1	1	Yes	No	Yes
1	1	0	0	Yes	No	Yes
1	1	0	1	Yes	No	Yes
1	1	1	0	Yes	Yes	Yes
1	1	1	1	Yes	No	Yes

1. If a slip is inserted before entering the qualification code, the transaction is printed on the slip.
2. If no slip is present, the transaction is printed on the receipt.
3. The transaction requires a slip but nothing is printed on it.

NOTE: The underlined options are those most commonly used.

PRINT CONTROL SUMMARY

TSCW Level Print Control (Page 9)			Transaction Print Media (From Page 10)			Item Print Media		
Bit 8	Bit 7	Bit 6	Slip	Receipt	Journal	Slip	Receipt	Journal
0	0	0	No	No	Yes	N/A	N/A	Yes*
0	0	1	No	No	Yes	No	No	Yes
0	1	0	No	No	Yes	N/A	N/A	No
0	1	1	No	No	Yes	N/A	N/A	Yes
1	0	0	No	No	Yes	N/A	N/A	Yes
1	0	1	No	No	Yes	No	No	Yes*
1	1	0	No	No	Yes	N/A	N/A	No
1	1	1	No	No	Yes	N/A	N/A	Yes*
0	0	0	No	Yes	Yes	N/A	Yes	Yes*
0	0	1	No	Yes	Yes	No	No	Yes
0	1	0	No	Yes	Yes	N/A	Yes	No
0	1	1	No	Yes	Yes	N/A	Yes	Yes
1	0	0	No	Yes	Yes	N/A	Yes*	Yes
1	0	1	No	Yes	Yes	No	No	Yes*
1	1	0	No	Yes	Yes	N/A	Yes*	No
1	1	1	No	Yes	Yes	N/A	Yes*	Yes*
0	0	0	Yes	No	Yes	Yes	N/A	Yes*
0	0	1	Yes	No	Yes	No	No	Yes
0	1	0	Yes	No	Yes	Yes	N/A	No
0	1	1	Yes	No	Yes	Yes	N/A	Yes
1	0	0	Yes	No	Yes	Yes*	N/A	No
1	0	1	Yes	No	Yes	No	No	Yes*
1	1	0	Yes	No	Yes	Yes*	N/A	No
1	1	1	Yes	No	Yes	Yes*	N/A	Yes*
0	0	0	Yes	Yes	Yes	Yes	Yes	Yes*
0	0	1	Yes	Yes	Yes	No	No	Yes
0	1	0	Yes	Yes	Yes	Yes	Yes	No
0	1	1	Yes	Yes	Yes	Yes	Yes	Yes
1	0	0	Yes	Yes	Yes	Yes*	Yes*	Yes
1	0	1	Yes	Yes	Yes	No	No	Yes*
1	1	0	Yes	Yes	Yes	Yes*	Yes*	No
1	1	1	Yes	Yes	Yes	Yes*	Yes*	Yes*

N/A = Not Applicable

* = Item to be printed immediately on the corresponding media. A yes without the * denotes printing at a later time.

PRINT COLUMN ADDRESS AND MAXIMUM/MINIMUM FIELD SIZE

b5	b4	b3	b2	b1	Print Column Address	Max./Min. Field Size (3rd and 4th TSCW Char.)
16	8	4	2	1		
0	0	0	0	0	0	0
0	0	0	0	1	1	1
0	0	0	1	0	2	2
0	0	0	1	1	3	3
0	0	1	0	0	4	4
0	0	1	0	1	5	5
0	0	1	1	0	6	6
0	0	1	1	1	7	7
0	1	0	0	0	8	8
0	1	0	0	1	9	9
0	1	0	1	0	10	10
0	1	0	1	1	11	11
0	1	1	0	0	12	12
0	1	1	0	1	13	13
0	1	1	1	0	14	14
0	1	1	1	1	15	15
1	0	0	0	0	16	16
1	0	0	0	1	17	17
1	0	0	1	0	18	18
1	0	0	1	1	19	19
1	0	1	0	0	20	20
1	0	1	0	1	21	21
1	0	1	1	0	22	22
1	0	1	1	1	23	23
1	1	0	0	0	24	24
1	1	0	0	1	25	25
1	1	0	1	0	26	26
1	1	0	1	1	27	27
1	1	1	0	0	28	Not Used
1	1	1	0	1	29	Not Used
1	1	1	1	0	Not Used	Not Used
1	1	1	1	1	Not Used*	Not Used

*Though this configuration is not used for column addressing, it may be used to indicate "data collection only" when bits 6, 7, and 8 are also equal to 1.

AUTOMATIC DATA TRANSFER (ADT) PROGRAMMING EXAMPLE

TSCW Char.	8765	4321	Octal	(Hex)	
First	0111	1111	177	(7F)	Implement ADT
Second	Print Control*				
Third	0000	0111	007	(07)	Automatic Data Field for Data 789
Fourth	1000	1001	211	(89)	
		Least Significant Digit			

* The print column address should be programmed to be 4 or greater when automatic data values are from 8000 through 9999.

The following TSCW's may be programmed for ADT.

- First merchandise word, DEPT.
- Second merchandise word, CLASS.
- Third merchandise word, MDSE NO.
- Fee type word.
- Fee amount word.
- Miscellaneous credit type word.
- Miscellaneous credit amount word.

PROGRAMMABLE MNEMONICS AND CHECK ENDORSEMENT LOGO CHARACTER SET

ASCII Bit Configuration							ASCII Character	Printed Character			Octal Entry	Octal Bit 8=1	Hex Equivalent	Hex Bit 8=1
b7	b6	b5	b4	b3	b2	b1		Europe	Japan	Domestic				
1	0	0	0	0	0	1	A	A	KANJI Equivalent	A	101	301	(41)	(C1)
1	0	0	0	0	1	0	B	B		B	102	302	(42)	(C2)
1	0	0	0	0	1	1	C	C		C	103	303	(43)	(C3)
1	0	0	0	1	0	0	D	D		D	104	304	(44)	(C4)
1	0	0	0	1	0	1	E	E		E	105	305	(45)	(C5)
1	0	0	0	1	1	0	F	F		F	106	306	(46)	(C6)
1	0	0	0	1	1	1	G	G		G	107	307	(47)	(C7)
1	0	0	1	0	0	0	H	H		H	110	310	(48)	(C8)
1	0	0	1	0	0	1	I	I		I	111	311	(49)	(C9)
1	0	0	1	0	1	0	J	J		J	112	312	(4A)	(CA)
1	0	0	1	0	1	1	K	K		K	113	313	(4B)	(CB)
1	0	0	1	1	0	0	L	L		L	114	314	(4C)	(CC)
1	0	0	1	1	0	1	M	M		M	115	315	(4D)	(CD)
1	0	0	1	1	1	0	N	N		N	116	316	(4E)	(CE)
1	0	0	1	1	1	1	O	O		O	117	317	(4F)	(CF)
1	0	1	0	0	0	0	P	P		P	120	320	(50)	(D0)
1	0	1	0	0	0	1	Q	Q		Q	121	321	(51)	(D1)
1	0	1	0	0	1	0	R	R		R	122	322	(52)	(D2)
1	0	1	0	0	1	1	S	S		S	123	323	(53)	(D3)
1	0	1	0	1	0	0	T	T		T	124	324	(54)	(D4)
1	0	1	0	1	0	1	U	U		U	125	325	(55)	(D5)
1	0	1	0	1	1	0	V	V		V	126	326	(56)	(D6)
1	0	1	0	1	1	1	W	W		W	127	327	(57)	(D7)
1	0	1	1	0	0	0	X	X	X	X	130	330	(58)	(D8)
1	0	1	1	0	0	1	Y	Y		Y	131	331	(59)	(D9)
1	0	1	1	0	1	0	Z	Z	Z	Z	132	332	(5A)	(DA)
0	1	1	0	0	0	0	0	0	0	0	060	260	(30)	(B0)
0	1	1	0	0	0	1	1	1	1	1	061	261	(31)	(B1)
0	1	1	0	0	1	0	2	2	2	2	062	262	(32)	(B2)
0	1	1	0	0	1	1	3	3	3	3	063	263	(33)	(B3)
0	1	1	0	1	0	0	4	4	4	4	064	264	(34)	(B4)
0	1	1	0	1	0	1	5	5	5	5	065	265	(35)	(B5)
0	1	1	0	1	1	0	6	6	6	6	066	266	(36)	(B6)
0	1	1	0	1	1	1	7	7	7	7	067	267	(37)	(B7)
0	1	1	1	0	0	0	8	8	8	8	070	270	(38)	(B8)
0	1	1	1	0	0	1	9	9	9	9	071	271	(39)	(B9)
0	1	0	0	0	0	0	SP	SP	SP	SP	040	240	(20)	(A0)
0	1	0	0	0	1	1	#	#	#	#	043	243	(23)	(A3)
0	1	0	0	1	0	0	$	½	@	@	044	244	(24)	(A4)
0	1	0	0	1	0	1	%	,	,	%	045	245	(25)	(A5)
0	1	0	1	1	0	1	-	-	-	-	055	255	(2D)	(AD)
0	1	0	1	1	1	0	.	.	.	.	056	256	(2E)	(AE)
0	1	0	1	1	1	1	/	/	/	/	057	257	(2F)	(AF)
Sector 0 Delimiter Code											377	---	(FF)	---
Feed One Line Code											177	---	(7F)	---

NOTE: Configurations not listed cause a space (SP).

MNEMONIC PROGRAMMING EXAMPLE (1 of 3)

Mnemonic Position	Usage	Suggested Mnemonic	Address Octal (Hex)	Entry Octal (Hex)	Char. Print
1	Merchandise item	MDS	0330(D8) 0331(D9) 0332(DA)	315(CD) 104(44) 123(53)	M D S
2	Returned merchandise item on a return or exchange transaction	RTN	0333(DB) 0334(DC) 0335(DD)	322(D2) 124(54) 116(4E)	R T N
3	Item correct entry	ERR	0336(DE) 0337(DF) 0340(E0)	305(C5) 122(52) 122(52)	E R R
4	Subtotal	STL	0341(E1) 0342(E2) 0343(E3)	323(D3) 124(54) 114(4C)	S T L
5	Discount	DIS	0344(E4) 0345(E5) 0346(E6)	304(C4) 111(49) 123(53)	D I S
6	Fee entry	FEE	0347(E7) 0350(E8) 0351(E9)	306(C6) 105(45) 105(45)	F E E
7	Miscellaneous credit entry	MSC	0352(EA) 0353(EB) 0354(EC)	315(CD) 123(53) 103(43)	M S C
8	Deposit entry	DEP	0355(ED) 0356(EE) 0357(EF)	304(C4) 105(45) 120(50)	D E P
9	Automatic tax amount	TAX	0360(F0) 0361(F1) 0362(F2)	324(D4) 101(41) 130(58)	T A X
10	Transaction total	TTL	0363(F3) 0364(F4) 0365(F5)	324(D4) 124(54) 114(4C)	T T L
11	Credit amount	CRT	0366(F6) 0367(F7) 0370(F8)	303(C3) 122(52) 124(54)	C R T
12	Amount tendered	ATD	0371(F9) 0372(FA) 0373(FB)	301(C1) 124(54) 104(44)	A T D
13	Change due	CDU	0374(FC) 0375(FD) 0376(FE)	303(C3) 104(44) 125(55)	C D U
None	Sector 0 delimiter		0377(FF)	377(FF)	
14	Charge transaction	CHG	1000(00) 1001(01) 1002(02)	303(C3) 110(48) 107(47)	C H G
15	Cash transaction	CSH	1003(03) 1004(04) 1005(05)	303(C3) 123(53) 110(48)	C S H
16	COD transaction	COD	1006(06) 1007(07) 1010(08)	303(C3) 117(4F) 104(44)	C O D

NOTE: Positions 14 through 19 denote transaction type mnemonics, which are printed in the header or footer.

MNEMONIC PROGRAMMING EXAMPLE (2 of 3)

Mnemonic Position	Usage	Suggested Mnemonic	Address Octal (Hex)	Entry Octal (Hex)	Char. Print
17	Layaway transaction	LWY	1011(09) 1012(0A) 1013(0B)	314(CC) 127(57) 131(59)	L W Y
18	Void transaction	VOD	1014(0C) 1015(0D) 1016(0E)	326(D6) 117(4F) 104(44)	V O D
19	Pay-on-account transaction	ROA	1017(0F) 1020(10) 1021(11)	322(D2) 117(4F) 101(41)	R O A
20	Terminal cash total (closing)	CSH	1022(12) 1023(13) 1024(14)	303(C3) 123(53) 110(48)	C S H
21	Terminal totals reset (closing)	RST	1025(15) 1026(16) 1027(17)	322(D2) 123(53) 124(54)	R S T
22	Terminal negative cash total (closing)	CS-	1030(18) 1031(19) 1032(1A)	303(C3) 123(53) 055(2D)	C S -
23	Terminal returns total (closing)	RTN	1033(1B) 1034(1C) 1035(1D)	322(D2) 124(54) 116(4E)	R T N
24	Terminal sales total (closing)	SLE	1036(1E) 1037(1F) 1040(20)	323(D3) 114(4C) 105(45)	S L E
25	Transaction abort media flag (prints five times across all media)	VOID(SP)	1041(21) 1042(22) 1043(23) 1044(24) 1045(25)	326(D6) 117(4F) 111(49) 104(44) 040(20)	V O I D SP
26	Miscellaneous data entry (merchandise & nonmerchandise mode)	INF	1046(26) 1047(27) 1050(28)	311(C9) 116(4E) 106(46)	I N F
27	Check tendered (overrides ATD)	CTD	1051(29) 1052(2A) 1053(2B)	303(C3) 124(54) 104(44)	C T D
28	Transaction offline (slashes)	/////	1054(2C) 1055(2D) 1056(2E) 1057(2F) 1060(30)	257(AF) 057(2F) 057(2F) 057(2F) 057(2F)	/ / / / /
29	Offline indication – no transmit mnemonic The IT, which is printed in addition to the NT for interactive offline indication, is automatically provided by firmware.	NT(SP)	1061(31) 1062(32) 1063(33)	316(CE) 124(54) 040(20)	N T SP
30	Manual tax entry	TX	1064(34) 1065(35)	324(D4) 130(58)	T X
31	Discount of both itemizers (in addition to normal DIS mnemonic) –next character to the right of the amount	T	1066(36)	324(D4)	T

EMONIC PROGRAMMING EXAMPLE (3 of 3)

nemonic osition	Usage	Suggested Mnemonic	Address Octal (Hex)	Entry Octal (Hex)	Char. Print
32	Bank Card I transaction (BankAmericard ®)	BAC	1067(37) 1070(38) 1071(39)	302(C2) 101(41) 103(43)	B A C
33	Bank Card II transaction (Master Charge ®)	MCH	1072(3A) 1073(3B) 1074(3C)	315(CD) 103(43) 110(48)	M C H
34	Check endorsement logo mnemonic – Since the check endorsement logo mnemonic content is determined entirely by user application, an example of typical programming is shown to illustrate the method. This example is constructed to provide a 2-line check endorsement print. The first line prints SYLVIES SWEATER SHOPPE and the second line FOR DEPOSIT ONLY.		1075(3D) 1076(3E) 1077(3F) 1100(40) 1101(41) 1102(42) 1103(43) 1104(44) 1105(45) 1106(46) 1107(47) 1110(48) 1111(49) 1112(4A) 1113(4B) 1114(4C) 1115(4D) 1116(4E) 1117(4F) 1120(50) 1121(51) 1122(52) 1123(53) 1124(54) 1125(55) 1126(56)	240(A0) 040(20) 040(20) 040(20) 123(53) 131(59) 114(4C) 126(56) 111(49) 105(45) 123(53) 040(20) 123(53) 127(57) 105(45) 101(41) 124(54) 105(45) 122(52) 040(20) 123(53) 110(48) 117(4F) 120(50) 120(50) 105(45)	SP SP SP SP S Y L V I E S SP S W E A T E R SP S H O P P E
	Space one line code (177)		1127(57) 1130(58) 1131(59) 1132(5A) 1133(5B) 1134(5C) 1135(5D) 1136(5E) 1137(5F) 1140(60) 1141(61) 1142(62) 1143(63) 1144(64) 1145(65) 1146(66) 1147(67) 1150(68) 1151(69) 1152(6A) 1153(6B) 1154(6C) 1155(6D) 1156(6E) 1157(6F)	177(7F) 040(20) 040(20) 040(20) 040(20) 040(20) 040(20) 040(20) 106(46) 117(4F) 122(52) 040(20) 104(44) 105(45) 120(50) 117(4F) 123(53) 111(49) 124(54) 040(20) 117(4F) 116(4E) 114(4C) 131(59) 040(20)	SP SP SP SP SP SP SP F O R SP D E P O S I T SP O N L Y SP
	End of mnemonics area delimiter (bit 8=1)		1160(70)	200(80)	..

TCU TERMINAL ADDRESS CHARACTER PROGRAMMING

This programming can be done only by NCR Field Engine personnel.

TCU TA Char. Bit Position	Logic State	Feature Provided
L1	1	Transmit Programming Changes to Central for Data Collection
	0	Programming Changes Not Transfer
L2	1	Nonprinting Cash Total
	0	Printing Cash Total
L3	1	Nonresettable Returns Total
	0	Resettable Returns Total
L4	1	Nonresettable Sales Total
	0	Resettable Sales Total
L5	1	Nondecrementing Cash Total (Gross Cash Only)
	0	Decrementing Cash Total
L6	1	Amount Entries Limited to a Maxim of 8 Digits
	0	Amount Entries Limited by TSCW Programming
M1	1	Inflated Currency in Effect (International Only)
	0	Domestic
M2	1	Half Penny Model (International Onl
	0	Domestic
M3	1	5.1 Sec. Message Response Timer (280-555 Only)
	0	500 Msec. Message Response Timer (280-555 Only) NOTE: Set M3 to 0 if 280-550
M4-M6	0	Not Used, Must be Reset (0).

	7	6	5	4	3	2	1	
	Operator Message (Row)		Inter-active at This Word	More Operator Messages	Operator Message (Column) Column 5 = 101 *			0000 (00)
	Row 2 = 10*		1 = Yes	1 = Yes Must = 0				ID NO.
				0				105
	Line Item Discount Print Control — Program to Load Only*		Print Column Address (0-29) for Line Item Discount* Always Left Justified					0001 (01)
	Bits 7 & 6 should not both = 0		16	8	4	2	1	
								153
	Reserved for Future Use		ID NO. Maximum Field Size (0-19)*					0002 (02)
Right Left			16	8	4	2	1	
	0	0						004
Set DV hts ulus Left Right	CDV This Entry	/FOR Key Illegal	ID NO. Minimum Field Size (0-19)*					0003 (03)
	1 = Yes	1 = Yes	16	8	4	2	1	
								041
d Yes	Operator Message (Row)		Inter-active at This Word	More Operator Messages	Operator Message (Column) Column 1 = 001*			0004 (04)
	Row 2=10*		1 = Yes	1 = Yes Must = 0				DEPT
				0				121
	Print Control*		First Merchandise Entry (DEPT) Column Address (0-29)*					0005 (05)
			16	8	4	2	1	
								143
Right Left	Reserved for Future Use		DEPT Maximum Field Size (0-16)*					0006 (06)
			16	8	4	2	1	
	0	0						006

ID NO. WORD

1st MDSE WORD, DEPT

e "General Tables"

CORE MAP

8	7	6	5	4	3	2	1	
Left Set of CDV Weights & Modulus 1 = Left 0 = Right	CDV This Entry 1 = Yes	/FOR Key Illegal 1 = Yes	DEPT Minimum Field Size (0-16)* 16	8	4	2	1	0007 (07)
								144
Skip This Word 1 = Yes	Operator Message (Row) Row 2 = 10*		Inter-active This Word 1 = Yes	More Operator Messages 1 = Yes Must = 0	Operator Message (Column) Column 2 = 010*			0010 (08) CLASS
				0				200
Print Control*			Second Merchandise Entry (CLASS) Column Address (0-29)* 16	8	4	2	1	0011 (09)
								009
Right Justify Print 1 = Right 0 = Left	Reserved for Future Use		CLASS Maximum Field Size (0-27)* 16	8	4	2	1	0012 (0A)
	0	0						000
Left Set of CDV Weights & Modulus 1 = Left 0 = Right	CDV This Entry 1 = Yes	/FOR Key Illegal 1 = Yes	CLASS Minimum Field Size (0-27)* 16	8	4	2	1	0013 (0B)
								009
Skip This Word 1 = Yes	Operator Message (Row) Row 2 = 10*		Inter-active This Word 1 = Yes	More Operator Messages 1 = Yes Must = 0	Operator Message (Column) Column 3 = 011*			0014 (0C) MDSE NO.
				0				102
Print Control*			Third Merchandise Entry (MDSE NO.) Column Address (0-29)* 16	8	4	2	1	0015 (0D)
								152

2nd MDSE WORD, CLASS

3rd MDSE WORD, MDSE NO.

*See "General Tables"

CORE MAP

8	7	6	5	4	3	2	1	
Right Justify Print Data 1 = Right 0 = Left	Reserved for Future Use		MDSE NO. Maximum Field Size (0-27)* 16	8	4	2	1	0016 (0E)
	0	0						005
Left Set of CDV Weights & Modulus 1 = Left 0 = Right	CDV This Entry 1 = Yes	/FOR Key Illegal 1 = Yes	MDSE NO. Minimum Field Size (0-27)* 16	8	4	2	1	0017 (0F)
								143
Skip This Word 1 = Yes	Operator Message (Row) Row 3 = 01*		Inter-active This Word 1 = Yes	More Operator Messages 1 = Yes Must = 0	Operator Message (Column) Column 3 = 011*			0020 (10) QTY/OR X PRICE
				0				043
Quantity Print Control — Program to Load Only* Bits 7 & 6 should not both = 0			Quantity Column Address (0-29)* 16	8	4	2	1	0021 (11)
0								163
Right Justify Print Data (Quantity) 1 = Right 0 = Left	Reserved for Future Use		Price Maximum Field Size (2-9)* 16	8	4	2	1	0022 (12)
	0	0	0					006
Left Set of CDV Weights & Modulus 1 = Left 0 = Right	CDV This Entry 1 = Yes	/FOR Key Illegal 1 = Yes	Price Minimum Field Size (0-9)* 16	8	4	2	1	0023 (13)
0	0		0					001
Skip This Word 1 = Yes	Operator Message (Row) Row 1 - 00*		Don't Care	More Operator Messages 1 = Yes	Operator Message (Column) Column 1 = 001*			0024 (14) DIS-COUNT 1
0			0	1				011

QTY/PRICE WORD

*See "General Tables"

CORE MAP

NONMDSE SELECTION WORD

8	7	6	5	4	3	2	1	
Don't Care	Operator Message (Row) Row 1 = 00 *		Don't Care	More Operator Messages 1 = Yes	Operator Message (Column) Column 2 = 010 *			0025 (15) FEE 2
0			0	1				012
Don't Care	Operator Message (Row) Row 1 = 00 *		Don't Care	More Operator Messages 1 = Yes	Operator Message (Column) Column 3 = 011 *			0026 (16) MISC CR 3
0			0	1				010
Don't Care	Operator Message (Row) Row 1 = 00 *		Don't Care	More Operator Messages 1 = Yes	Operator Message (Column) Column 4 = 100 *			0027 (17) CSH DEP 4 CHG DEP 5
0			0	1				014
Don't Care	Operator Message (Row) Row 1 = 00 *		Inter-active This Word 1 = Yes	More Operator Messages 1 = Yes Must = 0	Operator Message (Column) Column 5 = 101 *			0030 (18) DATA 6
0				0				005
Print Control *			1-Digit Nonmerchandise Selection Code Column Address (0-29) *					0031 (19)
			16	8	4	2	1	161

SFCW11

Post Qual. Trans. Print Control *			Inter-active at Acct. No. if Bank Card II (X7) 1 = Yes	C/A on Bank Card II (X7) 1 = Yes	Request Acct. No. for Bank Card II (X7) 1 = Yes	C/A on Bank Card I (X6) 1 = Yes	Request Acct. No. for Bank Card I (X6) 1 = Yes	0032 (1A) SFCW11
Slip & Journal	Receipt & Journal	Slip Overrides Receipt						
								003

SFCW12

Negative Quick Check for Bank Card I (X6) 1 = Yes	Negative Quick Check for Bank Card II (X7) 1 = Yes	Hang Up Terminal if Offline for DC 1 = Yes	Decimal (.) Key Legal on Amounts 1 = Yes	Inter-active on 50 Series Qual. Codes 1 = Yes	Qty Extend Legal for Fee & Misc. Cr. Tags 1 = Yes	Line Item Discount Illegal 1 = Yes	Post Qual. Illegal 1 = Yes	0033 (1B) SFCW12
								001

*See "General Tables"

CORE MAP

DISCOUNT ID WORD

8	7	6	5	4	3	2	1	
Skip This Word 1 = Yes Must = 0	Operator Message (Row) Row 1 = 00 *		Don't Care	More Operator Messages 1 = Yes	Operator Message (Column) Column 1 = 001 *			0034 (1C) DIS-COUNT 1
0			0	1				011
Don't Care	Operator Message (Row) Row 2 = 10 *		Inter-active This Word 1 = Yes	More Operator Messages 1 = Yes	Operator Message (Column) Column 5 = 101 *			0035 (1D) ID NO.
0				0				104
Discount ID Number Print Control *			Discount ID Number Entry Column Address (0-29) *					0036 (1E)
			16	8	4	2	1	155
Right Justify Print 1 = Right 0 = Left	Reserved for Future Use		Discount ID Number Maximum Field Size (0-27) *					0037 (1F)
	0	0	16	8	4	2	1	003
Left Set of CDV Weights & Modulus 1 = Left 0 = Right	CDV This Entry 1 = Yes	/FOR Key Illegal 1 = Yes	Discount ID Number Minimum Field Size (0-27) *					0040 (20)
			16	8	4	2	1	043

DISCOUNT PERCENT WORD

Skip This Word 1 = Yes Must = 0	Operator Message (Row) Row 1 = 00 *		Don't Care	More Operator Messages 1 = Yes	Operator Message (Column) Column 1 = 001 *			0041 (21) DIS-COUNT 1
			0	1				011
Don't Care	Operator Message (Row) Row 4 = 11 *		Inter-active This Word 1 = Yes	More Operator Messages 1 = Yes	Operator message (Column) Column 3 = 011 *			0042 (22) PER-CENT
0				0				143

*See "General Tables"

CORE MAP

8	7	6	5	4	3	2	1	
Indexed Percent Print Control *			Indexed Percent Only Column Address (0-29) *					0043 (23)
			16	8	4	2	1	
								151
Right Justify Print 1 = Right 0 = Left	Reserved for Future Use		Indexed Percent Maximum Field Size (0-5) *					0044 (24)
			16	8	4	2	1	
	0	0						002
Left Set of CDV Weights & Modulus 1 = Left 0 = Right	CDV This Entry 1 = Yes	/FOR Key Illegal 1 = Yes	Indexed Percent Minimum Field Size (0-5) *					0045 (25)
			16	8	4	2	1	
0	0	1						041
Skip This Word 1 = Yes	Operator Message (Row) Row 1 = 00 *		Inter-active This Word 1 = Yes	More Operator Messages 1 = Yes	Operator Message (Column) Column 2 = 010 *			0046 (26) FEE 2
				0				020
Fee Type Print Control *			Indexed Fee Type Code Column Address (0-29) *					0047 (27)
			16	8	4	2	1	
								146
Right Justify Print 1 = Right 0 = Left	Reserved for Future Use		Fee Type Code Maximum Field Size (0-27) *					0050 (28)
			16	8	4	2	1	
	0	0						003
Left Set of CDV Weights & Modulus 1 = Left 0 = Right	CDV This Entry 1 = Yes	/FOR Key Illegal 1 = Yes	Fee Type Code Minimum Field Size (0-27) *					0051 (29)
			16	8	4	2	1	
								043

FEE TYPE WORD

*See "General Tables"

CORE MAP

8	7	6	5	4	3	2	1	
Skip This Word	Operator Message (Row) Row 1 = 00 *		Don't Care	More Operator Messages 1 = Yes	Operator Message (Column) Column 2 - 010 *			0052 (2A) FEE 2
			0	1				012
Don't Care	Operator Message (Row) Row 4 = 11 *		Inter-active This Word 1 = Yes	More Operator Messages 1 = Yes	Operator Message (Column) Column 5 = 101 *			0053 (2B) AMOUNT
0				0				145
Reserved for Future Use			Fee Amount Maximum Field Size (2-11) * 2-9, if extension is desired					0054 (2C)
			16	8	4	2	1	
0	0	0	0					006
Left Set of CDV Weights & Modulus 1 = Left 0 = Right	CDV This Entry 1 = Yes	/FOR Key Illegal 1 = Yes	Fee Amount Minimum Field Size (0-11) * 0-9, if extension desired					0055 (2D)
			16	8	4	2	1	
0	0	1	0					041
Skip This Word 1 = Yes	Operator Message (Row) Row 1 = 00 *		Inter-active This Word 1 = Yes	More Operator Messages 1 = Yes	Operator Message (Column) Column 3 = 011 *			0056 (2E) MISC CR 3
				0				200
Misc. Credit Type Print Control *			Misc. Credit Type Code Column Address (0-29) *					0057 (2F)
			16	8	4	2	1	
								000
Right Justify Print 1 = Right 0 = Left	Reserved for Future Use		Misc. Credit Type Code Maximum Field Size (0-27) *					0060 (30)
			16	8	4	2	1	
	0	0						000

FEE AMOUNT WORD

MISC CR TYPE WORD

*See "General Tables"

CORE MAP

MISC CR AMOUNT WORD

8	7	6	5	4	3	2	1	
Left Set of CDV Weights & Modulus 1 = Left 0 = Right	CDV This Entry 1 = Yes	/FOR Key Illegal 1 = Yes	Misc. Credit Type Code Minimum Field Size (0-27)* 16	8	4	2	1	0061 (31)
								000
Skip This Word 1 = Yes	Operator Message (Row) Row 1 = 00*		Don't Care	More Operator Messages 1 = Yes	Operator Message (Column) Column 3 = 011*			0062 (32) MISC CR 3
			0	1				200
Don't Care	Operator Message (Row) Row 4 = 11*		Inter-active This Word 1 = Yes	More Operator Messages 1 = Yes	Operator Message (Column) Column 5 = 101*			0063 (33) AMOUNT
0				0				000
Reserved for Future Use			Misc. Credit Amount Maximum Field Size (2-11)* 2-9, if extension desired May be limited to 8 digits by TCU strapping 16	8	4	2	1	0064 (34)
0	0	0	0					00
Left Set of CDV Weights & Modulus 1 = Left 0 = Right	CDV This Entry 1 = Yes	/FOR Key Illegal 1 = Yes	Misc. Credit Amount Minimum Field Size (0-11)* 0-9, if extension desired 16	8	4	2	1	0065 (35)
0	0	1	0					000

DEP AMOUNT WORD PART I

Skip This Word 1 = Yes Must = 0	Operator Message (Row) Row 1 = 00*		Don't Care	More Operator Messages 1 = Yes	Operator Message (Column) Column 4 = 100*			0066 (36) CSH DEP-4 CHG DEP-5
0			0	1				014
Don't Care	Operator Message (Row) Row 4 = 11*		Inter-active This Word 1 = Yes	More Operator Messages 1 = Yes	Operator Message (Column) Column 5 = 101*			0067 (37) AMOUNT
0				0				145

*See "General Tables"

CORE MAP

SFCW13

8	7	6	5	4	3	2	1	
Accept Fee or Misc. Credit Tags 1 = Yes	Open Cash Drawer Operation 1 = Yes	Print Minus Sign (-) on Journal 1 = Yes	Journal Mnemonics Column Address (0-29)* 16	8	4	2	1	0070 (38) SFCW13
								040

DEP AMOUNT WORD PART II

Reserved for Future Use			Deposit Amount Maximum Field Size (2-11)* May be limited to 8 digits by TCU strapping 16	8	4	2	1	0071 (39)
0	0	0	0					006
Left Set of CDV Weights & Modulus 1 = Left 0 = Right	CDV This Entry 1 = Yes	/FOR Key Illegal 1 = Yes	Deposit Amount Minimum Field Size (0-11)* 16	8	4	2	1	0072 (3A)
0	0	1	0					041
Skip This Word 1 = Yes Must = 0	Operator Message (Row) Row 1 = 00*		Inter-active This Word 1 = Yes	More Operator Messages 1 = Yes	Operator Message (Column) Column 5 = 101*			0073 (3B) DATA 6
0				0				005

MISC DATA X WORD

Print Control*			Misc. Data X Entry Column Address (0-29)* 16	8	4	2	1	0074 (3C)
								341
Right Justify Print 1 = Right 0 = Left	Reserved for Future Use		Misc. Data X Maximum Field Size (0-25)* 16	8	4	2	1	0075 (3D)
	0	0						017
Left Set of CDV Weights & Modulus 1 = Left 0 = Right	CDV This Entry 1 = Yes	/FOR Key Illegal 1 = Yes	Misc. Data X Minimum Field Size (0-25)* 16	8	4	2	1	0076 (3E)
								001

*See "General Tables"

CORE MAP

8	7	6	5	4	3	2	1	
Skip This Word 1 = Yes Must = 0	Operator Message (Row) Row 1 = 00*		Inter-active This Word 1 = Yes	More Operator Messages 1 = Yes	Operator Message (Column) Column 5 = 101*			0077 (3F) DATA 6
0				0				005
Print Control*			Misc. Data 6 Entry Column Address (0-29)*					0100 (40)
			16	8	4	2	1	34 1
Right Justify Print 1 = Right 0 = Left	Reserved for Future Use		Misc. Data 6 Maximum Field Size (0-25)*					0101 (41)
	0	0	16	8	4	2	1	01
Left Set of CDV Weights & Modulus 1 = Left 0 = Right	CDV This Entry 1 = Yes	/FOR Key Illegal 1 = Yes	Misc. Data 6 Minimum Field Size (0-25)*					0102 (42)
			16	8	4	2	1	04
Skip This Word 1 = Yes	Operator Message (Row) Row 3 = 01*		Inter-active This Word 1 = Yes	More Operator Messages 1 = Yes	Operator Message (Column) Column 4 = 100*			0103 (43) AMT TEND
				0				04
Check Number Print Control (Load Only)* Bits 7 and 6 should not both = 0			Check Number Column Address (0-29)*					0104 (44)
			16	8	4	2	1	
0								15
Right Justify Print 1 = Right 0 = Left	Reserved for Future Use		Amount Tendered Maximum Field Size (2-11)* May be limited to 8 digits by TCU strapping					010 (45
	0	0	0					00

MISC DATA 6 WORD

AMOUNT TENDERED WORD

*See "General Tables"

CORE MAP

8	7	6	5	4	3	2	1	
Left Set of CDV Weights & Modulus 1 = Left 0 = Right	CDV This Entry 1 = Yes	/FOR Key Illegal 1 = Yes	Amount Tendered Minimum Field Size (0-11)*					0106 (46)
			16	8	4	2	1	
0	0		0					00 1
Skip This Word 1 = Yes Must = 0	Operator Message (Row) Row 4 = 11*		Inter-active This Word 1 = Yes	More Operator Messages 1 = Yes	Operator Message (Column) Column 4 = 100*			0107 (47) ACCT. NO.
0				0				1144
Print Control*			Account Number Column Address (0-29)*					0110 (48)
			16	8	4	2	1	34 0
Right Justify Print 1 = Right 0 = Left	Reserved for Future Use		Account Number Maximum Field Size (0-19)*					0111 (49)
	0	0	16	8	4	2	1	016
Left Set of CDV Weights & Modulus 1 = Left 0 = Right	CDV This Entry 1 = Yes	/FOR Key Illegal 1 = Yes	Account Number Minimum Field Size (0-19)*					0112 (4A)
		1	16	8	4	2	1	142

ACCOUNT NUMBER WORD

The /FOR key should not be used within the account number field when credit authorization or validation is desired.

Skip This Word 1 = Yes Must = 0	Operator Message (Row) Row 3 = 01*		Inter-active This Word 1 = Yes	More Operator Messages 1 = Yes	Operator Message (Column) Column 1 = 001*			0113 (4B) TAX AMT
0				0				000
Tax Code Print Control (Load Only)* Bits 7 and 6 should not both = 0			Tax Code Column Address (0-29)*					0114 (4C)
			16	8	4	2	1	
0								000

MANUAL TAX WORD

See "General Tables"

CORE MAP

8	7	6	5	4	3	2	1	
Right Justify Print 1 = Right 0 = Left	Reserved for Future Use		Manual Tax Amount Maximum Field Size (2-12)* May be limited to 8 digits by TCU strapping 16 8 4 2 1					0115 (4D)
	0	0	0					000
Left Set of CDV Weights & Modulus 1 = Left 0 = Right	CDV This Entry 1 = Yes	/FOR Key Illegal 1 = Yes	Manual Tax Amount Minimum Field Size (0-12)* 16 8 4 2 1					0116 (4E)
0	0		0					000
Skip This Word 1 = Yes Must = 0	Operator Message (Row) Row 3 = 01*		Inter-active This Word 1 = Yes	More Operator Messages 1 = Yes	Operator Message (Column) Column 5 = 101*			0117 (4F) DATE
0				0				065
Date Print Control on Opening*			Date (Opening Operations Only) Column Address (0-29* 16 8 4 2 1					0120 (50)
								341
Right Justify Print 1 = Right 0 = Left	Reserved for Future Use		Date Entered Maximum Field Size (0-27)* 16 8 4 2 1					0121 (51)
	0	0						01
Left Set of CDV Weights & Modulus 1 = Left 0 = Right	CDV This Entry 1 = Yes	/FOR Key Illegal 1 = Yes	Date Entered Minimum Field Size (0-27)* 16 8 4 2 1					0122 (52)
0	0							00
Skip This Word 1 = Yes Must = 0	Operator Message (Row) Row 3 = 01*		Inter-active This Word 1 = Yes	More Operator Messages 1 = Yes	Operator Message (Column) Column 2 = 010*			0123 (53) TRAN NO. /TERM NO.
0				0				04

DATE WORD

*See "General Tables"

CORE MAP

8	7	6	5	4	3	2	1	
Trans No./Term No. Print Control*			Trans No./Term No. Column Address (0-29)* 16 8 4 2 1					0124 (54)
								340
Right Justify Print 1 = Right 0 = Left	Reserved for Future Use		Maximum Field Size (0-27)* 16 8 4 2 1					0125 (55)
	0	0						011
Left Set of CDV Weights & Modulus 1 = Left 0 = Right	CDV This Entry 1 = Yes	/FOR Key Illegal 1 = Yes	Minimum Field Size (0-27)* 16 8 4 2 1					0126 (56)
								001
Skip This Word 1 = Yes Must = 0	Operator Message (Row) Row 3 = 01*		Inter-active This Word 1 = Yes	More Operator Messages 1 = Yes	Operator Message (Column) Column 3 = 011*			0127 (57) QTY/OR X PRICE
0				0				043
Quantity Print Control (Load Only)* Bits 6 and 7 should not both = 0			Quantity Column Address (0-29)* 16 8 4 2 1					0130 (58)
0								160
Right Justify Printer (Quantity) 1 = Right 0 = Left	Reserved for Future Use		Cash Count Amount Entry Maximum Field Size (2-9)* May be limited to 8 digits by TCU strapping 16 8 4 2 1					0131 (59)
	0	0	0					006
Left Set of CDV Weights & Modulus 1 = Left 0 = Right	CDV This Entry 1 = Yes	/FOR Key Illegal 1 = Yes	Cash Count Amount Entry Minimum Field Size (0-9)* 16 8 4 2 1					0132 (5A)
0	0		0					041

TRANS VOID/REENTRY WORD

CLOSING WORD

*See "General Tables"

CORE MAP

SFCW1

8	7	6	5	4	3	2	1	
Offline Floor Limit 1 = Yes	Check Endorse 1 = Yes	"X" Key Illegal at DEPT 1 = Yes	Check Endorse Logo Print 1 = Yes	END MDSE END RET Key Illegal in Nonmdse 1 = Yes	Programmable Cash Drawer 1 = Yes	Tax Option 00 = Manual or Auto 01 = Auto only 10 = No Tax 11 = Manual & Auto		0133 (5B) SFCW1
								212

SFCW2

Validate Print Control			Nonvalidate Print Control					
Slip & Journal	Receipt & Journal	Slip Overrides Receipt	Slip & Journal	Receipt & Journal	Slip Overrides Receipt	Single Line Footer 1=Single 0=2-Line	No Print by Terminal Except in Prog Mode 1=NoPrint	0134 (5C) SFCW2
								172

SFCW3

8	7	6	5	4	3	2	1	
Exact Amt Tendered Illegal 1 = Yes	Transaction Abort Illegal 1 = Yes	Mdse Items & Discounts Nontaxable 1=Nontax 0 = Tax	Nonmdse Entries Nontaxable 1=Nontax 0 = Tax	Credit Authorization Feature 1 = Yes	Check Authorization Feature 1 = Yes	Item Abort Illegal in Mdse Mode 1 = Yes	Item Abort Illegal in Nonmdse Mode 1 = Yes	0135 (5D) SFCW3
								200

0136, Bit 3 / 0137, Bit 6 — Tendering Option

0136, Bit 3	0137, Bit 6	Tendering Option
0	0	Multiple cash and checks tendered
0	1	Multiple checks and one cash tendered sufficient to cover the amount due
1	0	Multiple cash and one check tendered sufficient to cover the amount due
1	1	One amount tendered, either cash or check, sufficient to cover the amount due

SFCW4

8	7	6	5	4	3	2	1	
One Discount per Transaction Only 1 = Yes	Pickup Slip Print 1 = Yes	Credit Authorization Abort Illegal 1 = Yes	Dispense Change on Cash Credits 1 = Yes	Credit Authorization if Charge Credit 1 = Yes	Multiple Checks Tendered Illegal 1 = Yes	Do Not Print Amount Tendered 1 = No Print	Do Not Print Change Due 1 = No Print	0136 (5E) SFCW4
								250

SFCW5

8	7	6	5	4	3	2	1	
Discount Only 1 Itemizer 1 = Yes	Closed Cash Drawer on Qual. Code 20 1 = Yes	Multiple Cash Tendered Illegal 1 = Yes	Reserved for Future Use 0	Perform CDV on Bank Card I (X6) 1 = Yes	Perform CDV on Bank Card II (X7) 1 = Yes	Disable Subtotal Print During Closing 1 = Yes	Permit Subtotal Tax Extension 1 = Yes	0137 (5F) SFCW5
								240

SFCW6

8	7	6	5	4	3	2	1	
Negative Quick Check Option 1 = Yes	DataColl. Old & New Price (Tag Reading) 1 = Yes	Interactive Offline Tone 1 = Tone	Nonmdse Item Correct Lockout 1 = Yes	Mdse Item Correct Lockout 1 = Yes	Suppress One Leading 0 on Acct. No. Tags 1 = Yes	CLEAR Key Illegal After Check Auth. 1 = Yes	CLEAR Key Illegal After Credit Auth. 1 = Yes	0140 (60) SFCW6
								001 032

CORE MAP

SFCW7

8	7	6	5	4	3	2	1	
GTC on Acct. No. if Bank Card I (X6) 1 = Yes	GTC on all Qual. Codes if Slip Inserted 1 = Yes	GTC on Illegal Qual. Code Entry 1 = Yes	No GTC in Mdse. Mode if Slip not Enforced 1 = Yes	Lockout Totals Reset From Central 1 = Yes	Lockout Remote Programming w/o Key 1 = Yes	Accept Unsolicited Output 1 = Yes	Remote Program Load Permit 1 = Yes	0141 (61) SFCW7
								015

SFCW8

8	7	6	5	4	3	2	1	
Left Set of CDV Weights for POA 1 = Yes	Use Bank Card CDV Weights on POA 1 = Yes	GTC at Acct No. for POA 1 = Yes	GTC at Deposit for POA 1 = Yes	Auto Department No. (ADN) 1 = Yes	Pay-on-Account Qual. Code 8 Illegal 1 = Yes	Mdse Master Flag 1 = Yes	Nonmdse Master Flag 1 = Yes	0142 (62) SFCW8
						1**	1**	003

** Must be set (1) in accordance with interactive release 01 central software when interactivity is desired in merchandise or nonmerchandise modes.

SFCW9

8	7	6	5	4	3	2	1	
PDA Method for Alter. Resident CDV Scheme 1 = PDA	PDA Method for Resident CDV Scheme 1 = PDA	PDA Method for Bank Card I CDV Scheme 1 = PDA	PDA Method for Bank Card II CDV Scheme 1 = PDA	Lockout Decimal Key Usage at Closing Word 1 = Yes	Lockout Decimal Key Usage at Qty/Price Word 1 = Yes	Lockout Decimal Key Usage at Discount % Word 1 = Yes	Lockout Decimal Key for Line Item Discount 1 = Yes	0143 (63) SFCW9
								053

SFCW10

Qual Code 42 through 46 Print Control			5	4	3	2	1	
Slip & Journal	Receipt & Journal	Slip Overrides Receipt	GTC on Qualification Code 46 Entry 1 = Yes	Data Collect Offline Tone 1 = Tone	CDV Check on POA Acct. No. 1 = Yes	Credit Authorization on POA Acct. No. 1 = Yes	Pay on Account Qual. Code 9 Illegal 1 = Yes	0144 (64) SFCW10
								155

LET/TMR/ST (DC & CA Timers)

280 Line Establishment Timeout (LET) for Data Collect & Credit Authorization 4 to 60 Seconds				280-550 Message Response Timeout (TMR) for Data Coll. & Credit Auth. 280-555 Select Timeout (ST) for Credit Auth. Only 4 to 60 Seconds				0145 (65) DC & CA Timers
32 sec.	16 sec.	8 sec.	4 sec.	32 sec.	16 sec.	8 sec.	4 sec.	
		1				1		042

IGMT/SFCW17

Input Gross Message Timeout (IGMT): 28.444 Msec. to 6.827 Seconds 280-550 Only If a 280-555, IGMT is fixed at 513,998 Msec. and these are Don't Care bits.				Validate Qual Code 40 1 = Yes	Slip Enforce Qual Code 40 1 = Yes	Validate Qual Code 41 1 = Yes	Slip Enforce Qual Code 41 1 = Yes	0146 (66) IGMT/ SFCW17
								360

CORE MAP

Input Gross Message Timeout (IGMT) Programming, 280-550 Only

Bit Configuration				Hex	IGMT (Msec.)
b8	b7	b6	b5		
0	0	0	0	0	28.444
0	0	0	1	1	455.111
0	0	1	0	2	56.888
0	0	1	1	3	1,365.333
0	1	0	0	4	113.777
0	1	0	1	5	2,275.555
0	1	1	0	6	170.666
0	1	1	1	7	3,185.777
1	0	0	0	8	227.555
1	0	0	1	9	4,096.000
1	0	1	0	A	284.444
1	0	1	1	B	5,006.222
1	1	0	0	C	341.333
1	1	0	1	D	5,920.444
1	1	1	0	E	398.222
1	1	1	1	F	6,826.666

MAX FLOOR LIMIT

8	7	6	5	4	3	2	1	
Maximum Floor Limit ($0-$9999)								0147 (67)
Most Significant Digit (BCD)				(BCD)				Max. Floor Limit
$8XXX	$4XXX	$2XXX	$1XXX	$8XX	$4XX	$2XX	$1XX	009
(BCD)				Least Significant Digit (BCD)				0150 (68)
$8X	$4X	$2X	$1X	$8	$4	$2	$1	140

DC BUFFER CUTOFF

Data Collect Buffer Cutoff Address								0151 (69)
MSD			LSD					DC Buffer Cutoff
2	1	4	2	1	4	2	1	330
1	1	0	1	1	0	0	0	

CORE MAP

DC Buffer Cutoff Programming

Maximum Record Size* (Digits)	Buffer Cut-Off Point	Value Programmed Octal (Hex)
40	1330	330 (D8)
41 or 42	1327	327 (D7)
43 or 44	1326	326 (D6)
45 or 46	1325	325 (D5)
47 or 48	1324	324 (D4)
49 or 50	1323	323 (D3)
51 or 52	1322	322 (D2)
53 or 54	1321	321 (D1)
55 or 56	1320	320 (D0)
57 or 58	1317	317 (CF)
59 or 60	1316	316 (CE)
61 or 62	1315	315 (CD)
63 or 64	1314	314 (CC)
65 or 66	1313	313 (CB)
67 or 68	1312	312 (CA)
69 or 70	1311	311 (C9)
71 or 72	1310	310 (C8)
73 Or 74	1307	307 (C7)
75 or 76	1306	306 (C6)
77 or 78	1305	305 (C5)
79 or 80	1304	304 (C4)
81 or 82	1303	303 (C3)
83 or 84	1302	302 (C2)
85 or 86	1301	301 (C1)
87 or 88	1300	300 (C0)
89 or 90	1277	277 (BF)
91 or 92	1276	276 (BE)
93 or 94	1275	275 (BD)
95 or 96	1274	274 (BC)
97	1273	273 (BB)

*Excluding header fields.

KEYBOARD FORMAT

8	7	6	5	4	3	2	1	
Keyboard (Entry Sequence) Format								0152 (6A)
(BCD)				NOTE: Do not use Hex codes A through F or codes 90 through 99. (BCD)				Keyboard Format
8	4	2	1	8	4	2	1	000

CORE MAP

SFCW16/AUTO DISC %

8	7	6	5	4	3	2	1	
Round-Off Option 00 = $0.05 01 = $0.01 10 = $0.10 11 = Truncate		Sound Bad Read Tone (NCR 7867 Only) 1 = Yes	Auto Tax Exception (NCR 7867 Only) 1 = Yes	Auto. Discount Percent (00.000–99.999) Most Significant Digit (BCD) 8X.	4X.	2X.	1X.	0153 (6B) SFCW16/ Auto Disc. %
								171
Automatic Discount Percent (00.000-99.999)								
(BCD) X8.	X4.	X2.	X1.	(BCD) .8XX	.4XX	.2XX	.1XX	0154 (6C)
								000
(BCD) .X8X	.X4X	.X2X	.X1X	Least Significant Digit (BCD) .XX8	.XX4	.XX2	.XX1	0155 (6D)
								000

STORE NUMBER

Store Number								
(BCD) Most Significant Digit 8xxx	4xxx	2xxx	1xxx	(BCD) 8xx	4xx	2xx	1xx	0156 (6E) Store No.
								041
(BCD) 8x	4x	2x	1x	(BCD) Least Significant Digit 8	4	2	1	0157 (6F)
								002

TERMINAL NUMBER

Terminal Number								
(BCD) Most Significant Digit 8xxx	4xxx	2xxx	1xxx	(BCD) 8xx	4xx	2xx	1xx	0160 (70) Term No.
								010
(BCD) 8x	4x	2x	1x	(BCD) Least Significant Digit 8	4	2	1	016 (71
								000

CORE MAP

MAX SLIP LINES

8	7	6	5	4	3	2	1	
Not Used	Maximum Number of Slip Lines (0-127) Programmed in Binary 64	32	16	8	4	2	1	0162 (72) Max. Slip Lines
								022

AMT PRT

All Amounts								
Amount Print Control *		Amount Column Address (0-29) * (Right Justified) 16	8	4	2	1		0163 (73) Amt Print Control
								371

SLEW LINES

Number of Lines Between Body and Account No. (X-15) 8	4	2	1	Number of Lines Between Header and Body of Slip (1-15) 0000 = 1 line 0001 = 2 lines etc. 8	4	2	1	0164 (74) Body to Acct. No. /Hdr. to Body
								000

TRANS DATA PRT CONTROL

Print Control*		Wand Reader Transparent Data Column Address (0-29)* 16	8	4	2	1		0165(75) Transparent Data Print Control
								377

HEADER PRINT CONTROL

Header Print Control								
First Field Designation		Field 1 Column Address (0-29) * 16	8	4	2	1		0166 (76) Header Print Control
								300
Second Field Designation		Field 2 Column Address (0-29) * 16	8	4	2	1		0167 (77)
								122
Third Field Designation		Field 3 Column Address (0-29) * 16	8	4	2	1		0170 (78)
								156

See "General Tables"

CORE MAP

8	7	6	5	4	3	2	1	
Fourth Field Designation			Field 4 Column Address (0-29) *					0171 (79)
			16	8	4	2	1	
								066 / 064

Header and Footer Field Designations

b8	b7	b6	Field
0	0	1	Transaction No./Media Count
0	1	0	Terminal No.
0	1	1	Store No.
1	0	0	I.D. No.
1	0	1	Date
1	1	0	Transaction Type (Qualification Code and Transaction Mnemonic)

Bit configurations 000 or 111 are programmed for bits 8, 7, and 6 in locations following the last desired field when fewer than the maximum number of fields are needed.

The fields are printed in the sequence in which they are programmed and are left justified to the print column address specified in bits 1 through 5.

8	7	6	5	4	3	2	1	
Footer Print Control								0172 (7A)
First Field Designation			Field 1 Column Address (0-29) *					Footer Print Control
			16	8	4	2	1	247 / 24
Second Field Designation			Field 2 Column Address (0-29) *					0173 (7B)
			16	8	4	2	1	22
Third Field Designation			Field 3 Column Address (0-29) *					017 (7C
			16	8	4	2	1	00

FOOTER PRINT CONTROL

*See "General Tables"

CORE MAP

8	7	6	5	4	3	2	1	
Number of Lines Between Account No. and First Footer (0-15)				Number of Lines Between First Footer and Second Footer (0-15)				0175 (7D)
8	4	2	1	8	4	2	1	Footer Slew Lines
		1						000

FOOTER SLEW LINES

Qual Code Lockout Table 1 = Lockout Code								0176 (7E)
Store Charge Sale	Cash Sale	Cash Sale	Store Charge Sale	Store Charge Sale	Store Charge Sale	Bank Card I Charge Sale	Bank Card II Charge Sale	Qual Code Lockout Table
0	1	2	3	4	5	6	7	200
C.O.D.	Layaway	No Sale	Void	Cash Sale	Cash Sale	Bank Card I Charge Sale	Bank Card II Charge Sale	0177 (7F)
10	11	12	13	14	15	16	17	017
Cash Return	Store Charge Return	Store Charge Return	Store Charge Return	Store Charge Return	Store Charge Return	Bank Card I Charge Return	Bank Card II Charge Return	0200 (80)
20	21	22	23	24	25	26	27	014
Cash Exchange	Store Charge Exchange	Store Charge Exchange	Store Charge Exchange	Store Charge Exchange	Store Charge Exchange	Bank Card I Charge Exchange	Bank Card II Charge Exchange	0201 (81)
30	31	32	33	34	35	36	37	377
Store Charge Sale	Store Charge Sale	Cashier Opening	Clerk Opening	Closing	Reentry	Bank Card I Charge Sale or Inq. (Ref. Loc. 0144)	Programming (Manual) "Don't Care"	0202 (82)
40	41	42	43	44	45	46	47	102 / 306
							0	

Slip Enforce Table 1 = Slip Enforce								0203 (83)
Store Charge Sale	Cash Sale	Cash Sale	Store Charge Sale	Store Charge Sale	Store Charge Sale	Bank Card I Charge Sale	Bank Card II Charge Sale	Slip Enforce Table
0	1	2	3	4	5	6	7	261

QUALIFICATION CODE LOCKOUT TABLE

CORE MAP

SLIP ENFORCE TABLE

8	7	6	5	4	3	2	1	
C.O.D.	Layaway	No Sale	Void	Cash Sale	Cash Sale	Bank Card I Charge Sale	Bank Card II Charge Sale	0204 (84)
10	11	12	13	14	15	16	17	320
Cash Return	Store Charge Return	Store Charge Return	Store Charge Return	Store Charge Return	Store Charge Return	Bank Card I Charge Return	Bank Card II Charge Return	0205 (85)
20	21	22	23	24	25	26	27	361
Cash Exchange	Store Charge Exchange	Store Charge Exchange	Store Charge Exchange	Store Charge Exchange	Store Charge Exchange	Bank Card I Charge Exchange	Bank Card II Charge Exchange	0206 (86)
30	31	32	33	34	35	36	37	000

SLIP VALIDATION TABLE

Slip Validation Table					1 = Validate			0207 (87)
Store Charge Sale	Cash Sale	Cash Sale	Store Charge Sale	Store Charge Sale	Store Charge Sale	Bank Card I Charge Sale	Bank Card II Charge Sale	Validation Table
0	1	2	3	4	5	6	7	006
C.O.D.	Layaway	No Sale	Void	Cash Sale	Cash Sale	Bank Card I Charge Sale	Bank Card II Charge Sale	0210 (88)
10	11	12	13	14	15	16	17	00
Cash Return	Store Charge Return	Store Charge Return	Store Charge Return	Store Charge Return	Store Charge Return	Bank Card I Charge Return	Bank Card II Charge Return	021 (89)
20	21	22	23	24	25	26	27	00
Cash Exchange	Store Charge Exchange	Store Charge Exchange	Store Charge Exchange	Store Charge Exchange	Store Charge Exchange	Bank Card I Charge Exchange	Bank Card II Charge Exchange	021 (8A
30	31	32	33	34	35	36	37	0

CORE MAP

MEDIA COUNT INCREMENT TABLE

8	7	6	5	4	3	2	1	
Media Count Increment Table					1 = Increment			0213 (8B)
Store Charge Sale	Cash Sale	Cash Sale	Store Charge Sale	Store Charge Sale	Store Charge Sale	Bank Card I Charge Sale	Bank Card II Charge Sale	Media Count Table
0	1	2	3	4	5	6	7	075
C.O.D.	Layaway	No Sale	Void	Cash Sale	Cash Sale	Bank Card I Charge Sale	Bank Card II Charge Sale	0214 (8C)
10	11	12	13	14	15	16	17	320
Cash Return	Store Charge Return	Store Charge Return	Store Charge Return	Store Charge Return	Store Charge Return	Bank Card I Charge Return	Bank Card II Charge Return	0215 (8D)
20	21	22	23	24	25	26	27	361
Cash Exchange	Store Charge Exchange	Store Charge Exchange	Store Charge Exchange	Store Charge Exchange	Store Charge Exchange	Bank Card I Charge Exchange	Bank Card II Charge Exchange	0216 (8E)
30	31	32	33	34	35	36	37	000

SFCW14

Feed 1 Line After Print in Mdse Mode	Feed 1 Line After Print in Nonmdse Mode	Print Minus (-) on Slip/ Receipt	Receipt and Slip Mnemonics Column Address (0-29) *				0217 (8F)
1 = Yes	1 = Yes	1 = Yes	16	8	4	2	1	SFCW14
							340

SFCW15

GTC on All Valid Qual Codes	Accept ID & Acct. No. Tags at Misc. Data X Word	Permit Quantity Extension of Mdse Tags	Minus (-) Sign Column Address (0-29) * All Print Stations				0220 (90)
1 = Yes	1 = Yes	1 = Yes	16	8	4	2	1	SFCW15
		1					332

TAX CONSTANT

Tax Constant (0-$99)								0221 (91)
		(BCD)			(BCD)			Tax Constant
$8X	$4X	$2X	$1X	$8	$4	$2	$1	000

See "General Tables"

CORE MAP

TAX VALUE

8	7	6	5	4	3	2	1	
Tax Value (0-99¢)								0222 (92)
(BCD)				(BCD)				Tax Value
8X¢	4X¢	2X¢	1X¢	8¢	4¢	2¢	1¢	000
								0223 (93)
Break Point 1 — Tax Break Table. Store Break Points in Binary Form ($0.00 – $1.27). Enter 000 in all unused locations								Tax Break Table
1=Recycle	64	32	16	8	4	2	1	
								0224 (94)
Break Point 2								
1=Recycle	64	32	16	8	4	2	1	
								0225 (95)
Break Point 3								
1=Recycle	64	32	16	8	4	2	1	
								0226 (96)
Break Point 4								
1=Recycle	64	32	16	8	4	2	1	
								0227 (97)
Break Point 5								
1=Recycle	64	32	16	8	4	2	1	
								023 (98)
Break Point 6								
1=Recycle	64	32	16	8	4	2	1	
								023 (99)
Break Point 7								
1=Recycle	64	32	16	8	4	2	1	
								02 (9A)
Break Point 8								
1=Recycle	64	32	16	8	4	2	1	
								02 (9)
Break Point 9								
1=Recycle	64	32	16	8	4	2	1	
								02 (9)
Break Point 10								
1=Recycle	64	32	16	8	4	2	1	

TAX BREAK TABLE WORD

CORE MAP

8	7	6	5	4	3	2	1	
Break Point 11								0235 (9D)
1=Recycle	64	32	16	8	4	2	1	000
Break Point 12								0236 (9E)
1=Recycle	64	32	16	8	4	2	1	
Break Point 13								0237 (9F)
1=Recycle	64	32	16	8	4	2	1	
Break Point 14								0240 (A0)
1=Recycle	64	32	16	8	4	2	1	
Break Point 15								0241 (A1)
1=Recycle	64	32	16	8	4	2	1	
Break Point 16								0242 (A2)
1=Recycle	64	32	16	8	4	2	1	
Break Point 17								0243 (A3)
=Recycle	64	32	16	8	4	2	1	
reak Point 18								0244 (A4)
=Recycle	64	32	16	8	4	2	1	
reak Point 19								0245 (A5)
=Recycle	64	32	16	8	4	2	1	
eak Point 20								0246 (A6)
Recycle	64	32	16	8	4	2	1	
ak Point 21								0247 (A7)
ecycle	64	32	16	8	4	2	1	
ak Point 22								0250 (A8)
Recycle	64	32	16	8	4	2	1	

TAX BREAK TABLE WORD

CORE MAP

TAX BREAK TABLE WORD

8	7	6	5	4	3	2	1	
Break Point 23								0251 (A9)
1=Recycle	64	32	16	8	4	2	1	
Break Point 24								0252 (AA)
1=Recycle	64	32	16	8	4	2	1	
Break Point 25								0253 (AB)
1=Recycle	64	32	16	8	4	2	1	
Break Point 26 Additional break points are available in locations 0255 through 0277 when fewer than 19 CDV weight locations are needed								0254 (AC)
1=Recycle	64	32	16	8	4	2	1	

Tax Break Points

Brk. Pt.	Octal (Hex) Entry	Brk. Pt.	Octal (Hex) Entry	Brk. Pt.	Octal (Hex) Entry	Brk. Pt.	Octal (Hex) Entry
.00	000(00)	.32	040(20)	.64	100(40)	.96	140(60)
.01	001(01)	.33	041(21)	.65	101(41)	.97	141(61)
.02	002(02)	.34	042(22)	.66	102(42)	.98	142(62)
.03	003(03)	.35	043(23)	.67	103(43)	.99	143(63)
.04	004(04)	.36	044(24)	.68	104(44)	1.00	144(64)
.05	005(05)	.37	045(25)	.69	105(45)	1.01	145(65)
.06	006(06)	.38	046(26)	.70	106(46)	1.02	146(66)
.07	007(07)	.39	047(27)	.71	107(47)	1.03	147(67)
.08	010(08)	.40	050(28)	.72	110(48)	1.04	150(68)
.09	011(09)	.41	051(29)	.73	111(49)	1.05	151(69)
.10	012(0A)	.42	052(2A)	.74	112(4A)	1.06	152(6A)
.11	013(0B)	.43	053(2B)	.75	113(4B)	1.07	153(6B)
.12	014(0C)	.44	054(2C)	.76	114(4C)	1.08	154(6C)
.13	015(0D)	.45	055(2D)	.77	115(4D)	1.09	155(6D)
.14	016(0E)	.46	056(2E)	.78	116(4E)	1.10	156(6E)
.15	017(0F)	.47	057(2F)	.79	117(4F)	1.11	157(6F)
.16	020(10)	.48	060(30)	.80	120(50)	1.12	160(70)
.17	021(11)	.49	061(31)	.81	121(51)	1.13	161(71)
.18	022(12)	.50	062(32)	.82	122(52)	1.14	162(72)
.19	023(13)	.51	063(33)	.83	123(53)	1.15	163(73)
.20	024(14)	.52	064(34)	.84	124(54)	1.16	164(74)
.21	025(15)	.53	065(35)	.85	125(55)	1.17	165(75)
.22	026(16)	.54	066(36)	.86	126(56)	1.18	166(76)
.23	027(17)	.55	067(37)	.87	127(57)	1.19	167(77)
.24	030(18)	.56	070(38)	.88	130(58)	1.20	170(78)
.25	031(19)	.57	071(39)	.89	131(59)	1.21	171(79)
.26	032(1A)	.58	072(3A)	.90	132(5A)	1.22	172(7A)
.27	033(1B)	.59	073(3B)	.91	133(5B)	1.23	173(7B)
.28	034(1C)	.60	074(3C)	.92	134(5C)	1.24	174(7C)
.29	035(1D)	.61	075(3D)	.93	135(5D)	1.25	175(7D)
.30	036(1E)	.62	076(3E)	.94	136(5E)	1.26	176(7E)
.31	037(1F)	.63	077(3F)	.95	137(5F)	1.27	177(7F)

CORE MAP

Recycle Address Programming

Location of First Break Point of Repeat Cycle	Entry Octal	Entry (Hex)
0223	222	(92)
0224	223	(93)
0225	224	(94)
0226	225	(95)
0227	226	(96)
0230	227	(97)
0231	230	(98)
0232	231	(99)
0233	232	(9A)
0234	233	(9B)
0235	234	(9C)
0236	235	(9D)
0237	236	(9E)
0240	237	(9F)
0241	240	(A0)
0242	241	(A1)
0243	242	(A2)
0244	243	(A3)
0243	244	(A4)
0246	245	(A5)
0247	246	(A6)
0250	247	(A7)
0251	250	(A8)
0252	251	(A9)
0253	252	(AA)
0254	253	(AB)
etc.	etc.	etc.

RESIDENT CDV WEIGHTS WORD

8	7	6	5	4	3	2	1	
CDV Weights								0255 (AD) Resident CDV Weights
No. 19 (BCD) Alternate Resident (Left) 8 4 2 1								
No. 19 (BCD) Resident (Right) 8 4 2 1								
No. 18 (BCD) 8 4 2 1								0256 (AE)
No. 18 (BCD) 8 4 2 1								
No. 17 (BCD) 8 4 2 1								0257 (AF)
No. 17 (BCD) 8 4 2 1								
No. 16 (BCD) 8 4 2 1								0260 (B0)
No. 16 (BCD) 8 4 2 1								
No. 15 (BCD) 8 4 2 1								0261 (B1)
No. 15 (BCD) 8 4 2 1								

0262-0275
(B2-BD)

CORE MAP

RESIDENT CDV WEIGHTS WORD

8	7	6	5	4	3	2	1	
No. 14 (BCD) 8 4 2 1				No. 14 (BCD) 8 4 2 1				0262 (B2)
No. 13 (BCD) 8 4 2 1				No. 13 (BCD) 8 4 2 1				0263 (B3)
No. 12 (BCD) 8 4 2 1				No. 12 (BCD) 8 4 2 1				0264 (B4)
No. 11 (BCD) 8 4 2 1				No. 11 (BCD) 8 4 2 1				0265 (B5)
No. 10 (BCD) 8 4 2 1				No. 10 (BCD) 8 4 2 1				0266 (B6)
No. 9 (BCD) 8 4 2 1				No. 9 (BCD) 8 4 2 1			1	0267 (B7)
No. 8 (BCD) 8 4 2 1				No. 8 (BCD) 8 4 2 1				0270 (B8)
No. 7 (BCD) 8 4 2 1				No. 7 (BCD) 8 4 2 1				027 (B9)
No. 6 (BCD) 8 4 2 1				No. 6 (BCD) 8 4 2 1				027 (BA
No. 5 (BCD) 8 4 2 1				No. 5 (BCD) 8 4 2 1				027 (BC
No. 4 (BCD) 8 4 2 1				No. 4 (BCD) 8 4 2 1				027 (BD
No. 3 (BCD) 8 4 2 1				No. 3 (BCD) 8 4 2 1				027 (BE

0276-0311
(BE-C9)

CORE MAP

BANK CARD CDV WEIGHTS WORD

8	7	6	5	4	3	2	1	
No. 2 (BCD) 8 4 2 1				No. 2 (BCD) 8 4 2 1				0276 (BE)
No. 1 (BCD) Least Significant Weight 8 4 2 1				No. 1 (BCD) Least Significant Weight 8 4 2 1				0277 (BF)
Bank Card CDV Weights								0300 (C0)
No. 19 (BCD) Bank Card I (Left) 8 4 2 1				No. 19 (BCD) Bank Card II (Right) 8 4 2 1				Bank Card CDV Weights
No. 18 (BCD) 8 4 2 1				No. 18 (BCD) 8 4 2 1				0301 (C1)
No. 17 (BCD) 8 4 2 1				No. 17 (BCD) 8 4 2 1				0302 (C2)
No. 16 (BCD) 8 4 2 1				No. 16 (BCD) 8 4 2 1				0303 (C3)
No. 15 (BCD) 8 4 2 1				No. 15 (BCD) 8 4 2 1				0304 (C4)
No. 14 (BCD) 8 4 2 1				No. 14 (BCD) 8 4 2 1				0305 (C5)
No. 13 (BCD) 8 4 2 1				No. 13 (BCD) 8 4 2 1				0306 (C6)
No. 12 (BCD) 8 4 2 1				No. 12 (BCD) 8 4 2 1				0307 (C7)
No. 11 (BCD) 8 4 2 1				No. 11 (BCD) 8 4 2 1				0310 (C8)
No. 10 (BCD) 8 4 2 1				No. 10 (BCD) 8 4 2 1				0311 (C9)

CORE MAP

BANK CARD CDV WEIGHTS WORD

8	7	6	5	4	3	2	1	
No. 9 (BCD) 8 4 2 1				No. 9 (BCD) 8 4 2 1				0312 (CA)
								020
No. 8 (BCD) 8 4 2 1				No. 8 (BCD) 8 4 2 1				0313 (CB)
								40
No. 7 (BCD) 8 4 2 1				No. 7 (BCD) 8 4 2 1				0314 (CC)
								20
No. 6 (BCD) 8 4 2 1				No. 6 (BCD) 8 4 2 1				0315 (CD)
								040
No. 5 (BCD) 8 4 2 1				No. 5 (BCD) 8 4 2 1				0316 (CE)
								020
No. 4 (BCD) 8 4 2 1				No. 4 (BCD) 8 4 2 1				0317 (CF)
								40
No. 3 (BCD) 8 4 2 1				No. 3 (BCD) 8 4 2 1				0320 (D0)
								20
No. 2 (BCD) 8 4 2 1				No. 2 (BCD) 8 4 2 1				032[illegible] (D1)
								4
No. 1 (BCD) Least Significant Weight 8 4 2 1				No. 1 (BCD) Least Significant Weight 8 4 2 1				032[illegible] (D2)
								[illegible]

RESIDENT MODULI

CDV Moduli (2-11)		0323[illegible]
Alternate Resident (Left) 8 4 2 1	Resident (Right) 8 4 2 1	Resid[illegible] CDV Modu[illegible]
		01

BANK CARD MODULI

Bank Card CDV Moduli (2-11)		0324[illegible]
Bank Card I (Left) 8 4 2 1	Bank Card II (Right) 8 4 2 1	Bank Card CDV Mod[illegible]
		2[illegible]

CORE MAP

8	7	6	5	4	3	2	1	
280 Line Establishment Timeout (ILE) Interactive Only .25 Sec. to 3.75 Seconds				280-550 Message Response Timeout (IMR) for Interactive Only 280-555 Select Timeout for Interactive Only .25 Sec. to 3.75 Seconds				0325(D5) I/A Timer
2 Sec.	1 Sec.	.5 Sec.	.25 Sec.	2 Sec.	1 Sec.	.5 Sec.	.25 Sec.	
								377
Minimum Floor Limit ($0-$9,999)								0326 (D6)
(BCD) Most Significant Digit				(BCD)				Minimum Floor Limit
$8000	$4000	$2000	$1000	$800	$400	$200	$100	
								000
(BCD)				(BCD) Least Significant Digit				0327 (D7)
$80	$40	$20	$10	$8	$4	$2	$1	
								000
		Refer to "General Tables" for suggested mnemonic programming						0330 (D8)
								240
								0331 (D9)
								240
								0332 (DA)
								731 0
								0333 (DB)
								325
								0334 (DC)
								1.25
								0335 (DD)
								102
								0336 (DE)
								124
								0337 (DF)
								107

ILE/IMR/SIT I/A TIMERS

MIN. FLOOR LIMIT

MNEMONIC AND CHECK ENDORSEMENT LOGO PROGRAMMING AREA

0340-0355
(E0-ED)

CORE MAP

MNEMONIC AND CHECK ENDORSEMENT LOGO PROGRAMMING AREA

8	7	6	5	4	3	2	1	
								0340 (E0)
								124
								0341 (E1)
								101
								0342 (E2)
								114
								0343 (E3)
								304
								0344 (E4)
								? 111
								0345 (E5)
								? 407
								0346 (E6)
								103
								0347 (E7)
								117
								0350 (E8)
								0351 (E9)
								0352 (EA)
								0353 (EB)
								0354 (EC)
								0355 (ED)

0356-0373
(EE-FB)

CORE MAP

MNEMONIC AND CHECK ENDORSEMENT LOGO PROGRAMMING AREA

8	7	6	5	4	3	2	1	
								0356 (EE)
								0357 (EF)
								0360 (F0)
								0361 (F1)
								0362 (F2)
								0363 (F3)
								0364 (F4)
								0365 (F5)
								0366 (F6)
								0367 (F7)
								0370 (F8)
								0371 (F9)
								0372 (FA)
								0373 (FB)

CORE MAP

8	7	6	5	4	3	2	1	
								0374 (FC)
								0375 (FD)
								0376 (FE)
								0377 (FF)

NOTE: 377 (FF) must be programmed in the location following the last mnemonic programmed in sector 0.

Sector 1

								1000 (00)
								1001 (01)
								1002 (02)
								1003 (03)
								1004 (04)
								1005 (05)
								1006 (06)
								1007 (07)
								1010 (08)
								1011 (09)

MNEMONIC AND CHECK ENDORSEMENT LOGO PROGRAMMING AREA

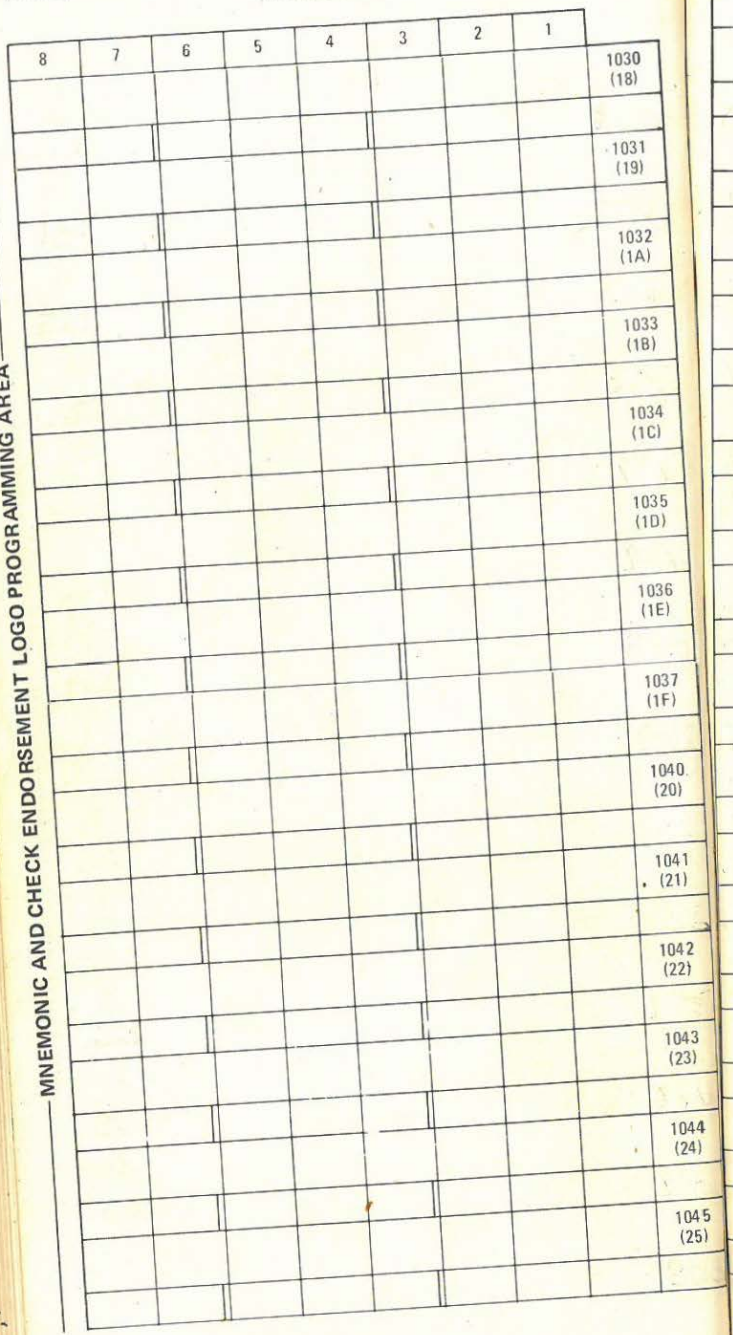
CORE MAP

8	7	6	5	4	3	2	1	
								1012 (0A)
								1013 (0B)
								1014 (0C)
								1015 (0D)
								1016 (0E)
								1017 (0F)
								1020 (10)
								1021 (11)
								1022 (12)
								1023 (13)
								1024 (14)
								1025 (15)
								1026 (16)
								1027 (17)

MNEMONIC AND CHECK ENDORSEMENT LOGO PROGRAMMING AREA

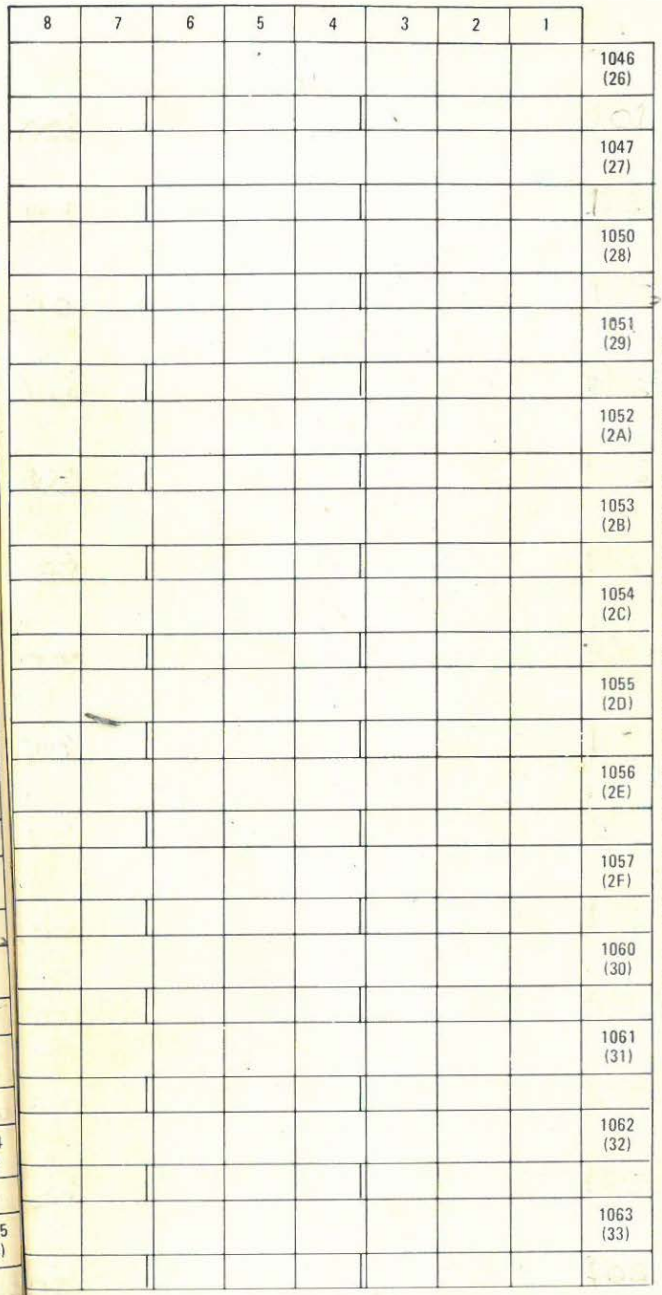
1030-1045
(18-25)

CORE MAP

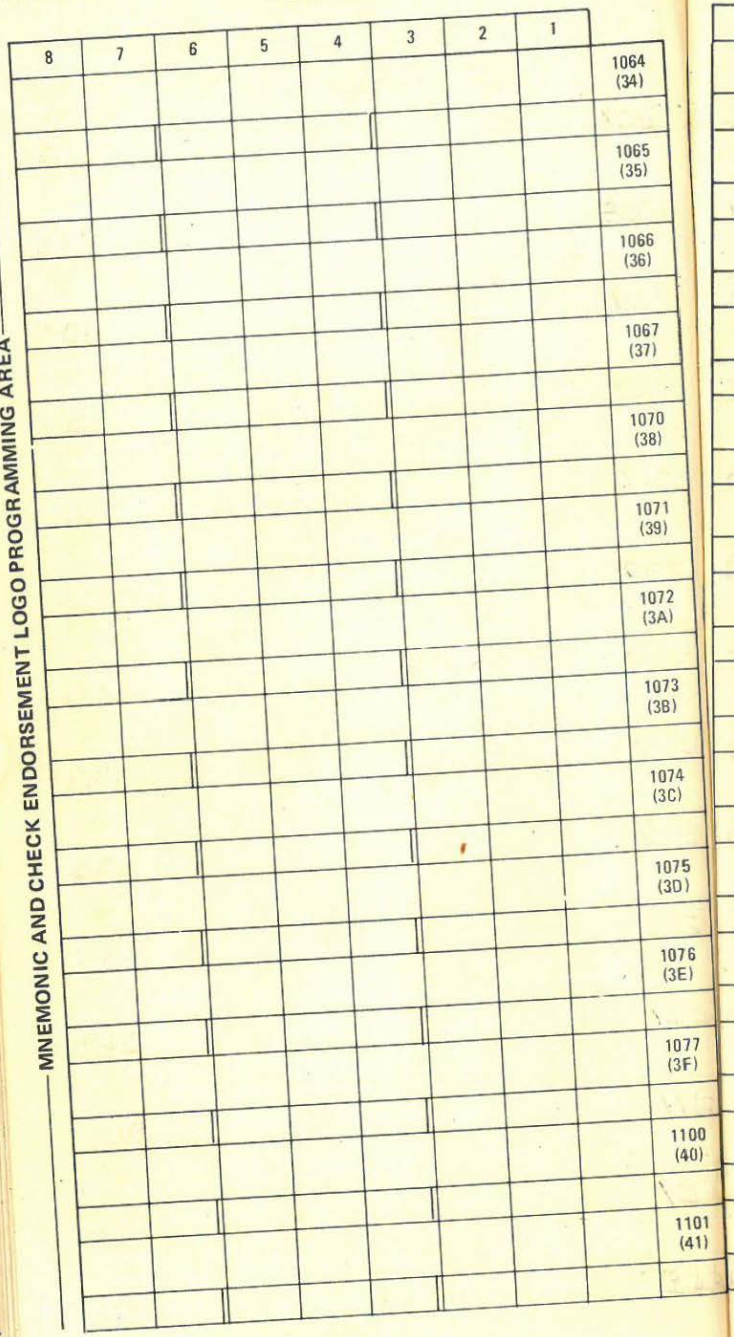


1046-1063
(26-33)

CORE MAP

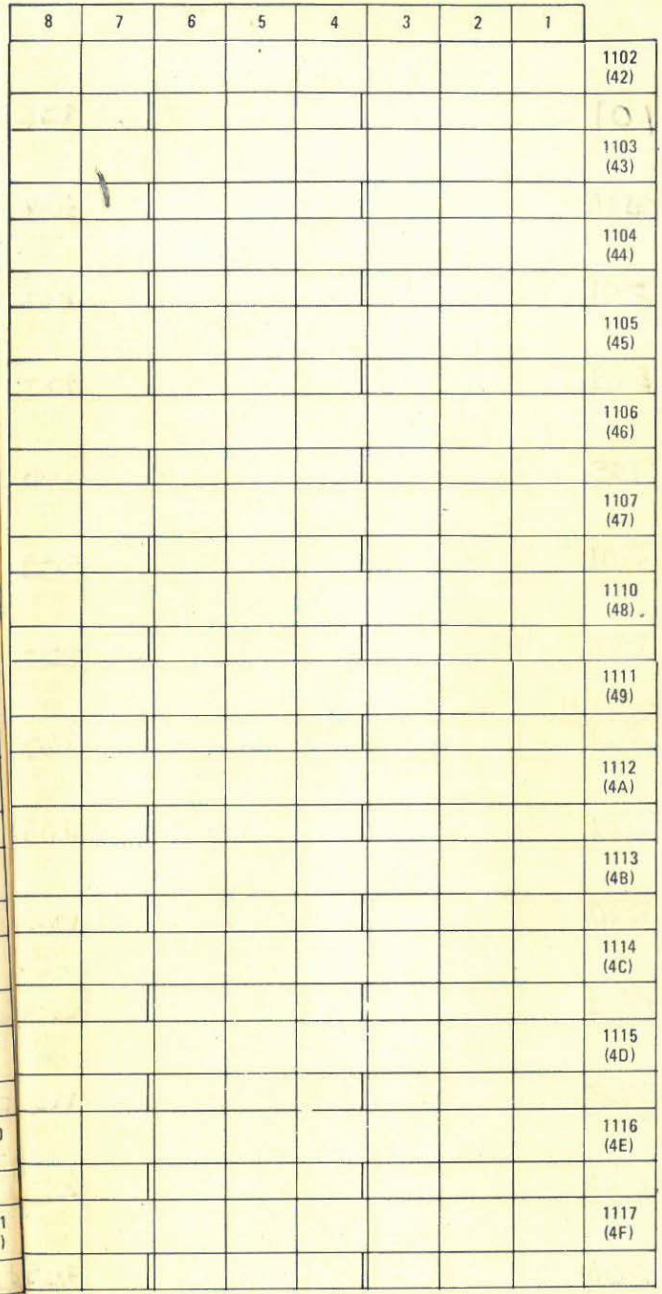


CORE MAP



MNEMONIC AND CHECK ENDORSEMENT LOGO PROGRAMMING AREA

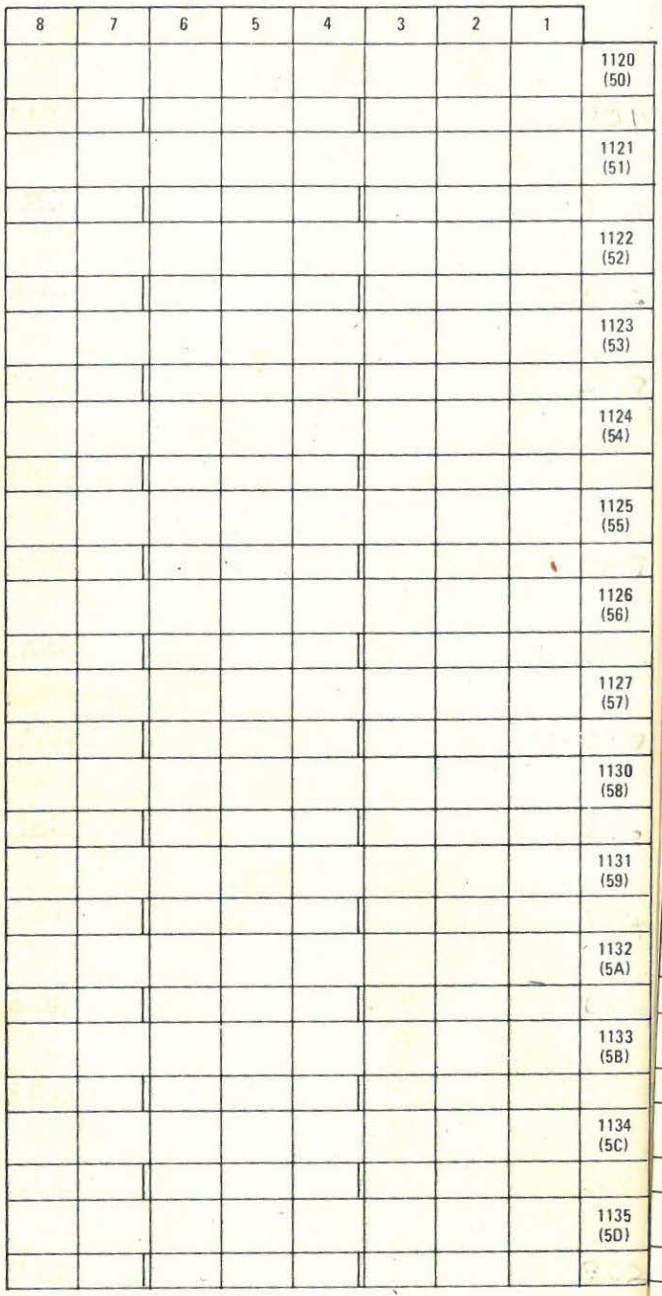
CORE MAP



MNEMONIC AND CHECK ENDORSEMENT LOGO PROGRAMMING AREA

1120-1135
(50-5D)

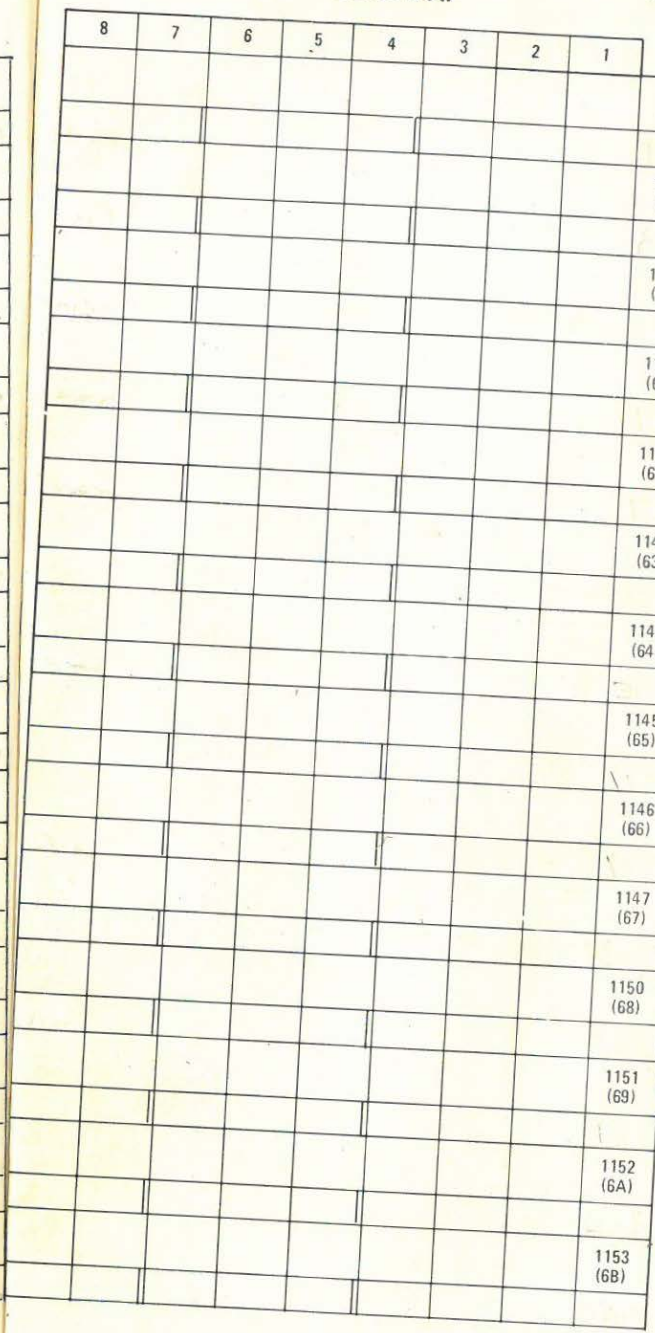
CORE MAP



MNEMONIC AND CHECK ENDORSEMENT LOGO PROGRAMMING AREA

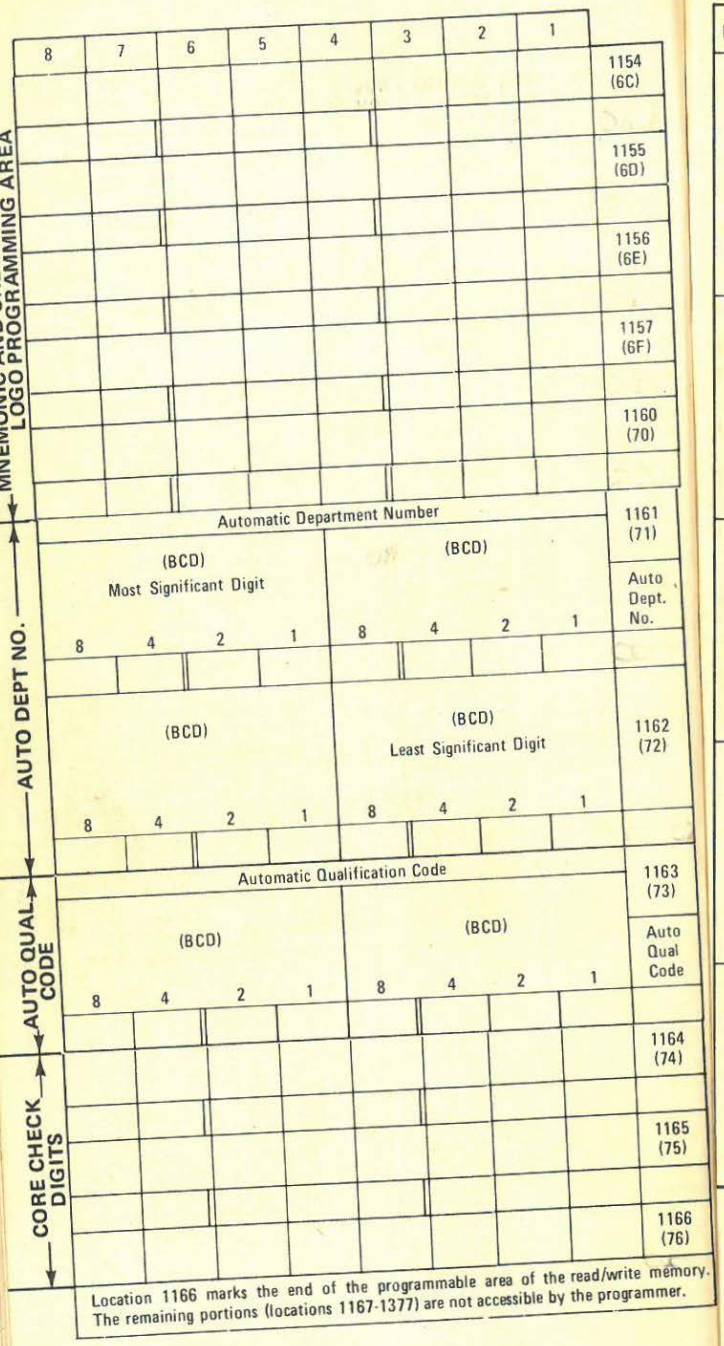
1136-1153
(5E-6B)

CORE MAP



MNEMONIC AND CHECK ENDORSEMENT LOGO PROGRAMMING AREA

CORE MAP



Location 1166 marks the end of the programmable area of the read/write memory. The remaining portions (locations 1167-1377) are not accessible by the programmer.

CODE CONVERSION TABLE

Dec	Oct	Hex	Binary	ASCII	Dec	Oct	Hex	Binary	ASCII
0	000	00	00000000	NUL*					
1	001	01	00000001	SOH	51	063	33	00110011	3*
2	002	02	00000010	STX	52	064	34	00110100	4
3	003	03	00000011	ETX*	53	065	35	00110101	5*
4	004	04	00000100	EOT	54	066	36	00110110	6*
5	005	05	00000101	ENQ*	55	067	37	00110111	7
6	006	06	00000110	ACK*	56	070	38	00111000	8
7	007	07	00000111	BEL	57	071	39	00111001	9*
8	010	08	00001000	BS	58	072	3A	00111010	:*
9	011	09	00001001	HT*	59	073	3B	00111011	;
10	012	0A	00001010	LF*	60	074	3C	00111100	<*
11	013	0B	00001011	VT	61	075	3D	00111101	=
12	014	0C	00001100	FF*	62	076	3E	00111110	>
13	015	0D	00001101	CR	63	077	3F	00111111	?*
14	016	0E	00001110	SO	64	100	40	01000000	@
15	017	0F	00001111	SI*	65	101	41	01000001	A*
16	020	10	00010000	DLE	66	102	42	01000010	B*
17	021	11	00010001	DC1*	67	103	43	01000011	C
18	022	12	00010010	DC2*	68	104	44	01000100	D*
19	023	13	00010011	DC3	69	105	45	01000101	E
20	024	14	00010100	DC4*	70	106	46	01000110	F
21	025	15	00010101	NAK	71	107	47	01000111	G*
22	026	16	00010110	SYN	72	110	48	01001000	H*
23	027	17	00010111	ETB*	73	111	49	01001001	I
24	030	18	00011000	CAN*	74	112	4A	01001010	J
25	031	19	00011001	EM	75	113	4B	01001011	K*
26	032	1A	00011010	SUB	76	114	4C	01001100	L
27	033	1B	00011011	ESC*	77	115	4D	01001101	M*
28	034	1C	00011100	FS	78	116	4E	01001110	N*
29	035	1D	00011101	GS*	79	117	4F	01001111	O
30	036	1E	00011110	RS*	80	120	50	01010000	P*
31	037	1F	00011111	US	81	121	51	01010001	Q
32	040	20	00100000	SP	82	122	52	01010010	R
33	041	21	00100001	!*	83	123	53	01010011	S*
34	042	22	00100010	"*	84	124	54	01010100	T
35	043	23	00100011	#	85	125	55	01010101	U*
36	044	24	00100100	$*	86	126	56	01010110	V*
37	045	25	00100101	%	87	127	57	01010111	W
38	046	26	00100110	&	88	130	58	01011000	X
39	047	27	00100111	'*	89	131	59	01011001	Y*
40	050	28	00101000	(*	90	132	5A	01011010	Z*
41	051	29	00101001	)	91	133	5B	01011011	[
42	052	2A	00101010	*	92	134	5C	01011100	*
43	053	2B	00101011	+*	93	135	5D	01011101	]
44	054	2C	00101100	,	94	136	5E	01011110	^
45	055	2D	00101101	-*	95	137	5F	01011111	_*
46	056	2E	00101110	.*	96	140	60	01100000	`*
47	057	2F	00101111	/	97	141	61	01100001	a
48	060	30	00110000	Ø*	98	142	62	01100010	b
49	061	31	00110001	1	99	143	63	01100011	c*
50	062	32	00110010	2	100	144	64	01100100	d

CODE CONVERSION TABLE

Dec	Oct	Hex	Binary	ASCII	Dec	Oct	Hex	Binary	ASCII
101	145	65	01100101	e*	151	227	97	10010111	ETB
102	146	66	01100110	f*	152	230	98	10011000	CAN
103	147	67	01100111	g	153	231	99	10011001	EM*
104	150	68	01101000	h	154	232	9A	10011010	SUB*
105	151	69	01101001	i*	155	233	9B	10011011	ESC
106	152	6A	01101010	j*	156	234	9C	10011100	FS*
107	153	6B	01101011	k	157	235	9D	10011101	GS
108	154	6C	01101100	l*	158	236	9E	10011110	RS
109	155	6D	01101101	m	159	237	9F	10011111	US*
110	156	6E	01101110	n	160	240	A0	10100000	SP*
111	157	6F	01101111	o*	161	241	A1	10100001	!
112	160	70	01110000	p	162	242	A2	10100010	"
113	161	71	01110001	q*	163	243	A3	10100011	#*
114	162	72	01110010	r*	164	244	A4	10100100	$
115	163	73	01110011	s	165	245	A5	10100101	%*
116	164	74	01110100	t*	166	246	A6	10100110	&*
117	165	75	01110101	u	167	247	A7	10100111	'
118	166	76	01110110	v	168	250	A8	10101000	(
119	167	77	01110111	w*	169	251	A9	10101001	)*
120	170	78	01111000	x*	170	252	AA	10101010	**
121	171	79	01111001	y	171	253	AB	10101011	+
122	172	7A	01111010	z*	172	254	AC	10101100	,*
123	173	7B	01111011	{*	173	255	AD	10101101	-
124	174	7C	01111100	!	174	256	AE	10101110	.
125	175	7D	01111101	}	175	257	AF	10101111	/*
126	176	7E	01111110	~*	176	260	B0	10110000	Ø
127	177	7F	01111111	DEL	177	261	B1	10110001	1*
128	200	80	10000000	NUL	178	262	B2	10110010	2*
129	201	81	10000001	SOH*	179	263	B3	10110011	3
130	202	82	10000010	STX*	180	264	B4	10110100	4*
131	203	83	10000011	ETX	181	265	B5	10110101	5
132	204	84	10000100	EOT*	182	266	B6	10110110	6
133	205	85	10000101	ENQ	183	267	B7	10110111	7*
134	206	86	10000110	ACK	184	270	B8	10111000	8*
135	207	87	10000111	BEL*	185	271	B9	10111001	9
136	210	88	10001000	BS*	186	272	BA	10111010	:
137	211	89	10001001	HT	187	273	BB	10111011	;*
138	212	8A	10001010	LF	188	274	BC	10111100	<
139	213	8B	10001011	VT*	189	275	BD	10111101	=*
140	214	8C	10001100	FF	190	276	BE	10111110	>*
141	215	8D	10001101	CR*	191	277	BF	10111111	?
142	216	8E	10001110	SO*	192	300	C0	11000000	@*
143	217	8F	10001111	SI	193	301	C1	11000001	A
144	220	90	10010000	DLE*	194	302	C2	11000010	B
145	221	91	10010001	DC1	195	303	C3	11000011	C*
146	222	92	10010010	DC2	196	304	C4	11000100	D
147	223	93	10010011	DC3*	197	305	C5	11000101	E*
148	224	94	10010100	DC4	198	306	C6	11000110	F*
149	225	95	10010101	NAK*	199	307	C7	11000111	G
150	226	96	10010110	SYN*	200	310	C8	11001000	H

CODE CONVERSION TABLE

Dec	Oct	Hex	Binary	ASCII	Dec	Oct	Hex	Binary	ASCII
201	311	C9	11001001	I*	231	347	E7	11100111	g*
202	312	CA	11001010	J*	232	350	E8	11101000	h*
203	313	CB	11001011	K	233	351	E9	11101001	i
204	314	CC	11001100	L*	234	352	EA	11101010	j
205	315	CD	11001101	M	235	353	EB	11101011	k*
206	316	CE	11001110	N	236	354	EC	11101100	l
207	317	CF	11001111	O*	237	355	ED	11101101	m*
208	320	D0	11010000	P	238	356	EE	11101110	n*
209	321	D1	11010001	Q*	239	357	EF	11101111	o
210	322	D2	11010010	R*	240	360	F0	11110000	p*
211	323	D3	11010011	S	241	361	F1	11110001	q
212	324	D4	11010100	T*	242	362	F2	11110010	r
213	325	D5	11010101	U	243	363	F3	11110011	s*
214	326	D6	11010110	V	244	364	F4	11110100	t
215	327	D7	11010111	W*	245	365	F5	11110101	u*
216	330	D8	11011000	X*	246	366	F6	11110110	v*
217	331	D9	11011001	Y	247	367	F7	11110111	w
218	332	DA	11011010	Z	248	370	F8	11111000	x
219	333	DB	11011011	[*	249	371	F9	11111001	y*
220	334	DC	11011100	\	250	372	FA	11111010	z
221	335	DD	11011101	]*	251	373	FB	11111011	{
222	336	DE	11011110	^*	252	374	FC	11111100	|*
223	337	DF	11011111	_	253	375	FD	11111101	}
224	340	E0	11100000	`	254	376	FE	11111110	~
225	341	E1	11100001	a*	255	377	FF	11111111	DEL*
226	342	E2	11100010	b*					
227	343	E3	11100011	c					
228	344	E4	11100100	d*					
229	345	E5	11100101	e					
230	346	E6	11100110	f					

NOTE: An * in the ASCII column identifies Even Parity; others are Odd Parity.